STR-W770

SERVICE MANUAL

STR-W770 is RECEIVER section in MHC-W770AV.

Manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY", "PRO LOGIC" and the double-D symbol ⧫⧫ are trademarks of Dolby Laboratories Licensing Corporation.

SPECIFICATIONS

Tuner section
FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5-108.0MHz
Aerial	FM lead aerial
Aerial terminals	75 ohm unbalanced
Intermediate frequency	10.7MHz

AM tuner section

Tuning range	(Thai,Australian,E) AM: 530-1,710kHz (with interval set at 10kHz) 531-1,710kHz (with interval set at 9kHz) (EXCEPT Thai,Australian,E) MW: 531-1,602kHz (with interval set at 9kHz) (EXCEPT Thai,Australian,E) SW: 5.95-17.90MHz (with interval set at 9kHz)
Intermediate frequency	450kHz
Aerial	AM loop aerial, External aerial terminal

Video section

Inputs	AV INPUT VIDEO (phone jack) : 1 Vp-p, 75 ohms MONITOR OUT (phone jack) : 1 Vp-p, 75 ohms

Amplifier section

DIN power output	80W +80W (6 ohms at 1kHz, DIN)
Music power output	190W + 190W (6 ohms at 1kHz, 10%, THD)
Inputs	MD/VIDEO 1 IN (phono jacks) : voltage 250 mV, impedance 47 kilo ohms AV INPUT AUDIO (phone jacks) : voltage 250 mV, impedance 47 kilo ohms MIX/MIC (phone jack) :sensitivity 1mV, impedance 10 kilo ohms
Outputs	MD/VIDEO 1 OUT (phone jacks) : voltage 250 mV, impedance 1 kilo ohm PHONES (stereo phone jack) : accepts headphone of 8 ohms or more. SPEAKER : accepts impedance of 6 to 16 ohms SUPER WOOFER : Voltage 1 V, impedance 1 kilo ohms

— Continued on next page —

FM STEREO/FM-AM RECEIVER

MICROFILM

SONY

General

Power requirements	240V AC, 50/60 Hz (Australian) 220V AC, 50/60 Hz (Thai) 110 - 120V/220-240V AC adjustable, 50/60 Hz (OTHER MODEL)
Power consumption	170 watts
Dimensions (w / h / d)	Approx. 280 × 205 × 336 mm
Mass	Approx. 7.0 kg

Design and specifications are subject to change without notice.

TABLE OF CONTENTS

1. GENERAL ····· 3

2. TEST MODE ····· 5

3. DIAGRAMS ····· 6

3-1. Circuit Boards Location ····· 6
3-2. Printed Wiring Board — Panel Section — ····· 7
3-3. Schematic Diagram — Panel Section — ····· 9
3-4. Printed Wiring Board — Main Section — ····· 12
3-5. Schematic Diagram — Main Section — ····· 15
3-6. Printed Wiring Board and Schematic Diagram — Power Section — ····· 19
3-7. Printed Wiring Board and Schematic Diagram — Mic Echo/AV in Section — ····· 23
3-8. Printed Wiring Board and Schematic Diagram — Power Section — ····· 26
3-9. IC Pin Function ····· 29
3-10. IC Block Diagrams ····· 31

4. EXPLODED VIEWS

4-1. Main Section ····· 33
4-2. Panel Section ····· 34

5. ELECTRICAL PARTS LIST ····· 35

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tentalum capacitor may be damaged by heat.

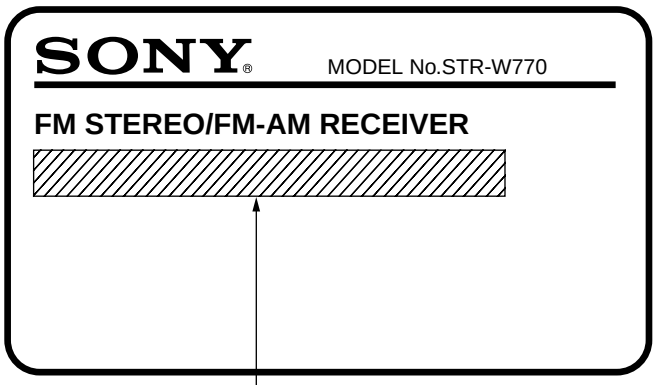
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MODEL IDENTIFICATION

— Model Number Label —

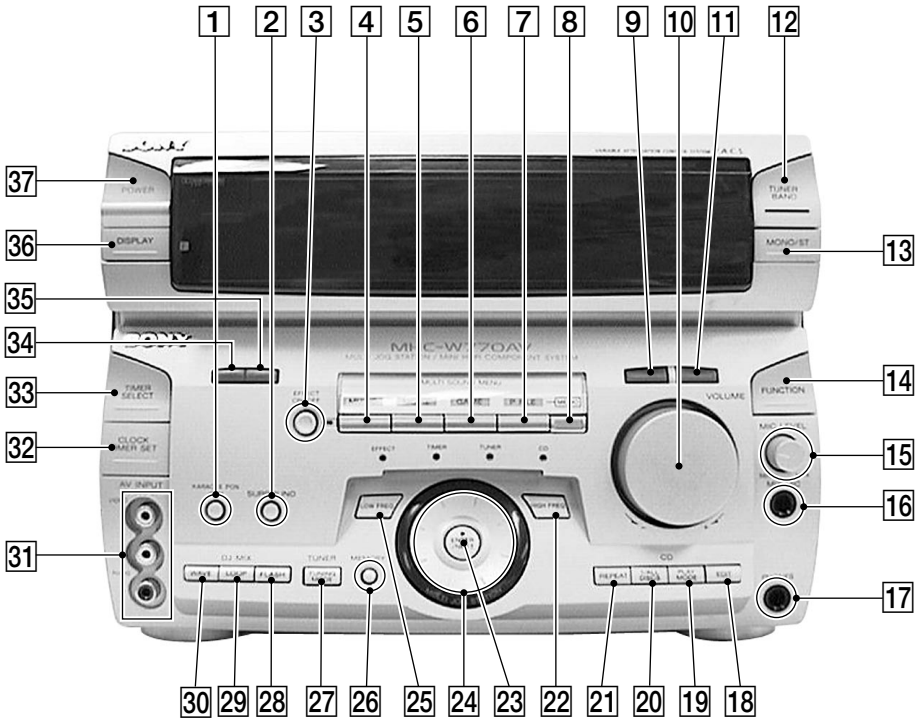
MODEL IDENTIFICATION



Australian : AC 240V AC, ~ 50/60Hz 170W
Thai : AC 220V AC, ~ 50/60Hz 170W
OTHER MODEL : AC 110-120V, 220-240V selectable ~ 50/60Hz 170W

SECTION 1
GENERAL

— FRONT PANEL —



1 KARAOKE PON/MPX button
2 SURROUND button
3 EFFECT ON/OFF button
4 MUSIC button
5 MOVIE button
6 GAME button
7 P FILE button
8 MEMO button
9 DBFB button
10 VOLUME
11 GROOVE button
12 TUNER BAND button
13 MONO/ST button
14 FUNCTION button
1∞ MIC LEVEL
16 MIX MIC jack
17 PHONES jack
18 EDIT button
19 PLAY MODE button
20 1/ALL DISCS button
21 REPEAT button
22 HIGH FREQ button
23 ENTER/NEXT button
24 MULTI JOG STATION dial
2∞ LOW FREQ button
26 MEMORY button
27 TUNING MODE button
28 FLASH button
29 LOOP button
30 WAVE button
31 AV INPUT jack
32 CLOCK TIMER SET button
33 TIMER SELECT button
34 DOLBY PROLOGIC button
3∞ MODE button
36 DISPLAY button
37 POWER button

— BACK PANEL —

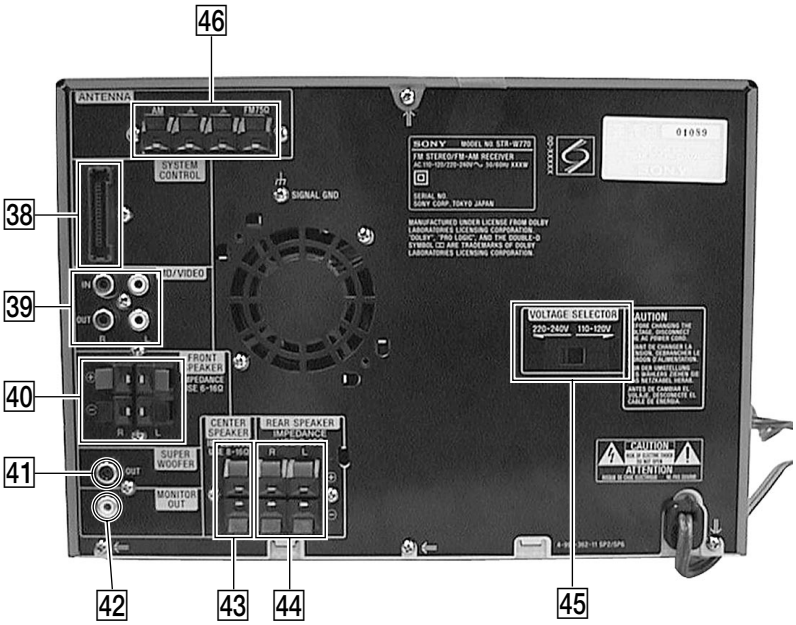


Photo : E MODEL

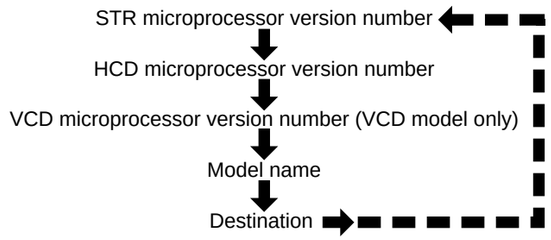
38 SYSTEM CONTROL
39 MD/VIDEO jack
40 FRONT SPEAKER terminal
41 SUPER WOOFER jack
42 MONITOR OUT jack
43 CENTER SPEAKER terminal
44 REAR SPEAKER terminal
45 VOLTAGE SELECTOR switch
(EXCEPT Thai, Australian model)
46 ANTENNA terminal

SECTION 2
TEST MODE

FL DISPLAY/KEY LED TEST MODE

Press the REPEAT, ENTER/NEXT and SURROUND buttons simultaneously.

1. All FL segments and all LEDs turn on.
2. To access the microprocessor information, press the P.FILE key. Each pressing of the P.FILE key advances the display on the FL tube in the following sequence.



3. To check the encoder, press the MUSIC key. The following display appears on the FL tube.

"K 0 J 0 V 0"

The number after K indicates the number of times that the key is pressed. The key which was pressed in the past, is not counted. The key which is pressed hereafter is counted. Pressing any key increases the number after K.

The number after J indicates the number of rotations that the JOG dial is rotated. Turning the JOG dial clockwise increases the number after J. Turning the JOG dial counter-clockwise decreases the number after J.

The number after V indicates the number of rotations that the VOLUME dial is rotated. Turning the VOLUME dial clockwise increases the number after V. Turning the VOLUME dial counter-clockwise decreases the number after V.

To exit this mode, perform the "Cold Reset" (reset clearing memory) as described below.

GENERAL TEST MODE (INCLUDING AMPLIFIER AND TUNER)

Press the REPEAT, ENTER/NEXT and CLOCK/TIMER SET buttons simultaneously while the main power is on.

1. Sound volume display segments start to blinking.
2. The tuning enters the PRESET mode.
3. Rotating the VOLUME control clockwise increases the volume level to maximum.
   Rotating the VOLUME control counter-clockwise decreases the volume level to minimum.
4. Pressing the MUSIC key decreases the equalizer curve to minimum and "EQ CHECK" appears on the display.
   Pressing the MOVIE key increases the equalizer curve to maximum.
   Pressing the GAME key makes the equalizer curve flat.
5. Pressing any of the DBFB, GROOVE or SURROUND key disappears "EQ CHECK" on the display.

To exit this mode, perform the "Cold Reset" (reset clearing memory) as described below.

AGING MODE

1. CD aging mode
   To execute the CD aging, set the three discs to the CD tray and set the function to CD. REPEAT, ENTER/NEXT and LOOP buttons simultaneously. The CD aging mode starts and the disc calendar starts blinking.
2. Tape aging mode
   To execute the tape aging, set the two tapes to the tape A and B drives. Set the function to TAPE. Press the REPEAT, ENTER/NEXT and LOOP buttons simultaneously. Press the A forward key to start the tape aging mode. "AGING" appears on the display.

CD SERVICE MODE

Turn on the main power. Press the REPEAT, ENTER/NEXT and KARAOKE PON/MPX buttons simultaneously.
VACS toggles between ON and OFF.

VACS LEVEL DISPLAY

Turn on the main power. Press the EDIT, ENTER/NEXT and KARAOKE PON/MPX buttons simultaneously.
VACS level appears on the display.

CD SHIP MODE

Turn on the main power. Press the PLAY MODE and POWER buttons simultaneously.
The main power is turned off and LOCK appears on the display.

TUNER STEP CHANGE

Turn on the main power. Set the function to TUNER. Select MW band from the present tuning.
Turn off the main power. Press the ENTER/NEXT and POWER buttons simultaneously. The main power is turned on and the changed step appears on the display.

MD/VIDEO 1 FUNCTION CHANGE

Press the FUNCTION and POWER buttons simultaneously while the main power is on. When the function is set to VIDEO 1, the function is changed to MD and MD appears on the display.
When the function is set to MD, the function is changed to VIDEO 1 and VIDEO 1 appears on the display.

COLD RESET (Reset which clears memory.)

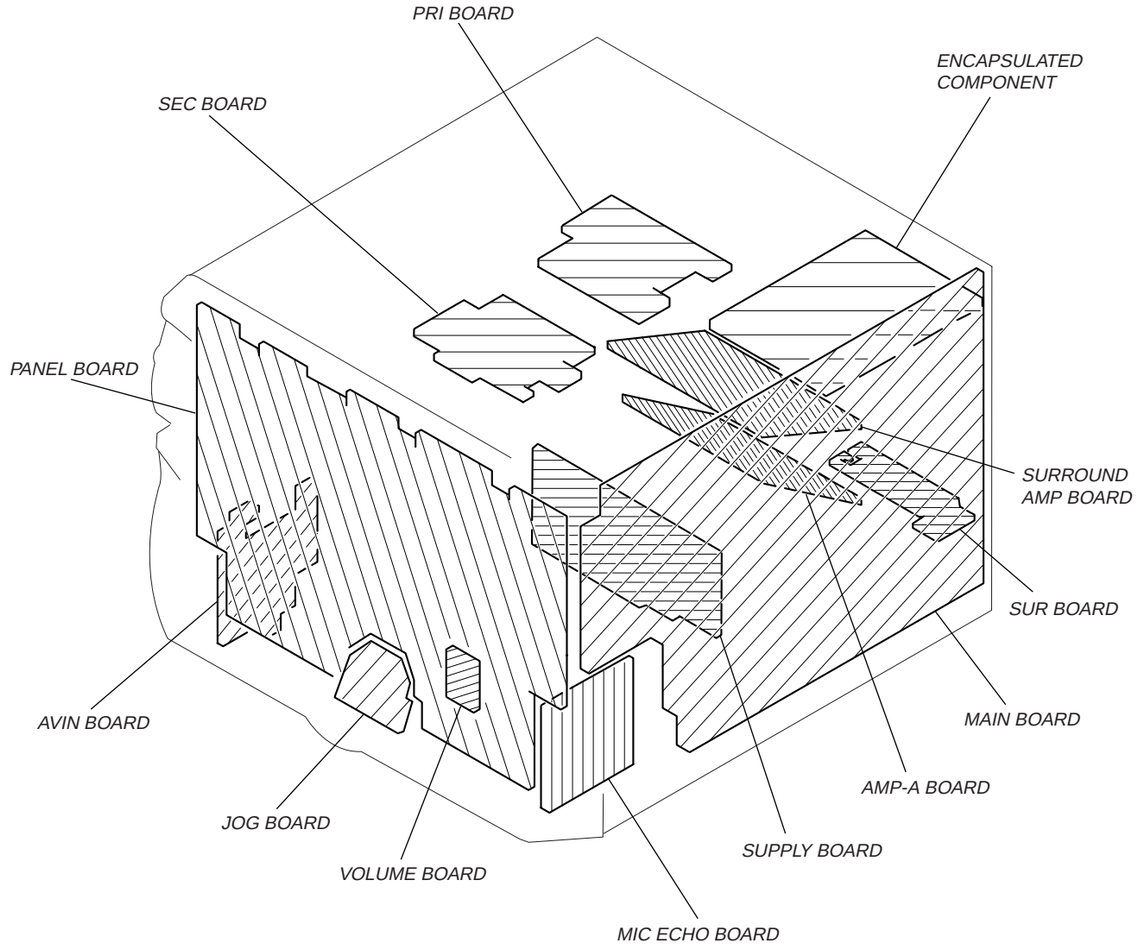
Press the REPEAT, ENTER/NEXT and DISPLAY buttons simultaneously at any time. The system is reset while clearing memory.

HOT RESET (Reset which does not clear memory.)

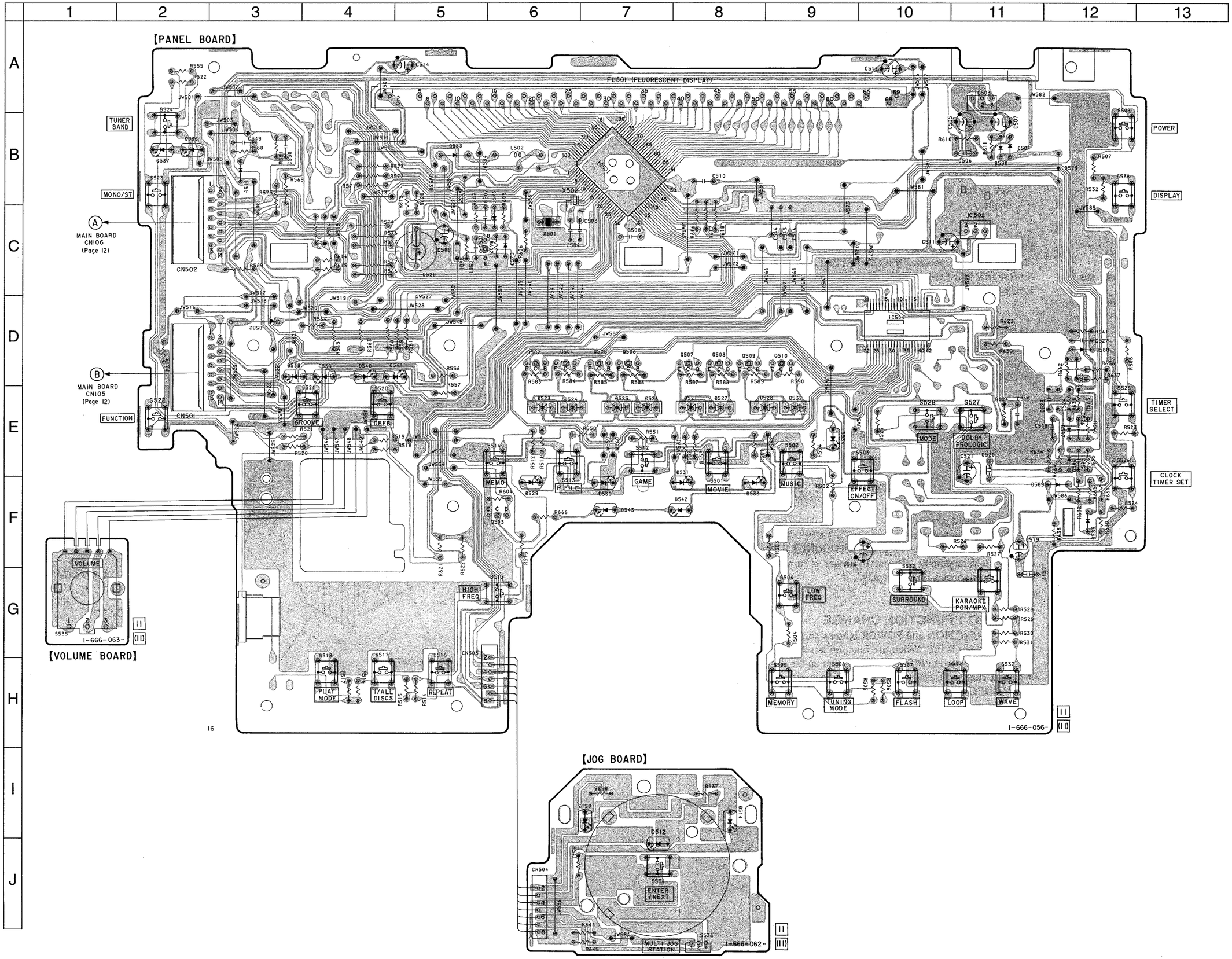
Press the REPEAT, ENTER/NEXT and TIMER SELECT buttons simultaneously at any time. The system is reset without clearing memory.

SECTION 3
DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION



3-2. PRINTED WIRING BOARD — PANEL SECTION —



• **Semiconductor Location**

Ref. No.	Location
D511	B-3
D512	J-7
D513	I-7
D514	I-8
D521	E-8
D523	E-6
D524	E-6
D525	E-7
D526	E-7
D527	E-8
D528	E-8
D529	F-6
D530	F-7
D531	F-8
D532	E-9
D533	F-8
D534	E-9
D536	B-2
D537	B-2
D538	D-3
D539	D-4
D540	D-4
D541	D-5
D542	F-8
D543	F-7
D575	C-6
D576	B-6
D579	B-12
D580	B-11
D581	B-11
D582	D-3
D583	B-5
D585	F-12
D586	E-12
D587	E-12
D588	D-12
D589	F-12
IC501	B-7
IC502	C-11
IC503	A-11
IC504	D-10
Q501	C-5
Q502	D-6
Q503	F-6
Q504	D-6
Q505	D-7
Q506	D-7
Q507	D-8
Q508	D-8
Q509	D-8
Q510	D-9

Note:

• ——— :parts extracted from the component side.
• ▭ :parts on the side which is seen.

3-3. SCHEMATIC DIAGRAM — PANEL SECTION —

【PANEL BOARD】

IC502 REMOTE SENSOR

FLUORESCENT DISPLAY

FL501

BOTTOM VIEW

IC501 DISPLAY CONTROL

IC501 TMP87CM75F

IC503 RESET GEN

IC504 LED DRIVE

【VOLUME BOARD】

Q502, 504–510 LED SWITCH

【JOG BOARD】

MULTI JOG STATION

A MAIN BOARD CN106 (Page 15)

B MAIN BOARD CN105 (Page 15)

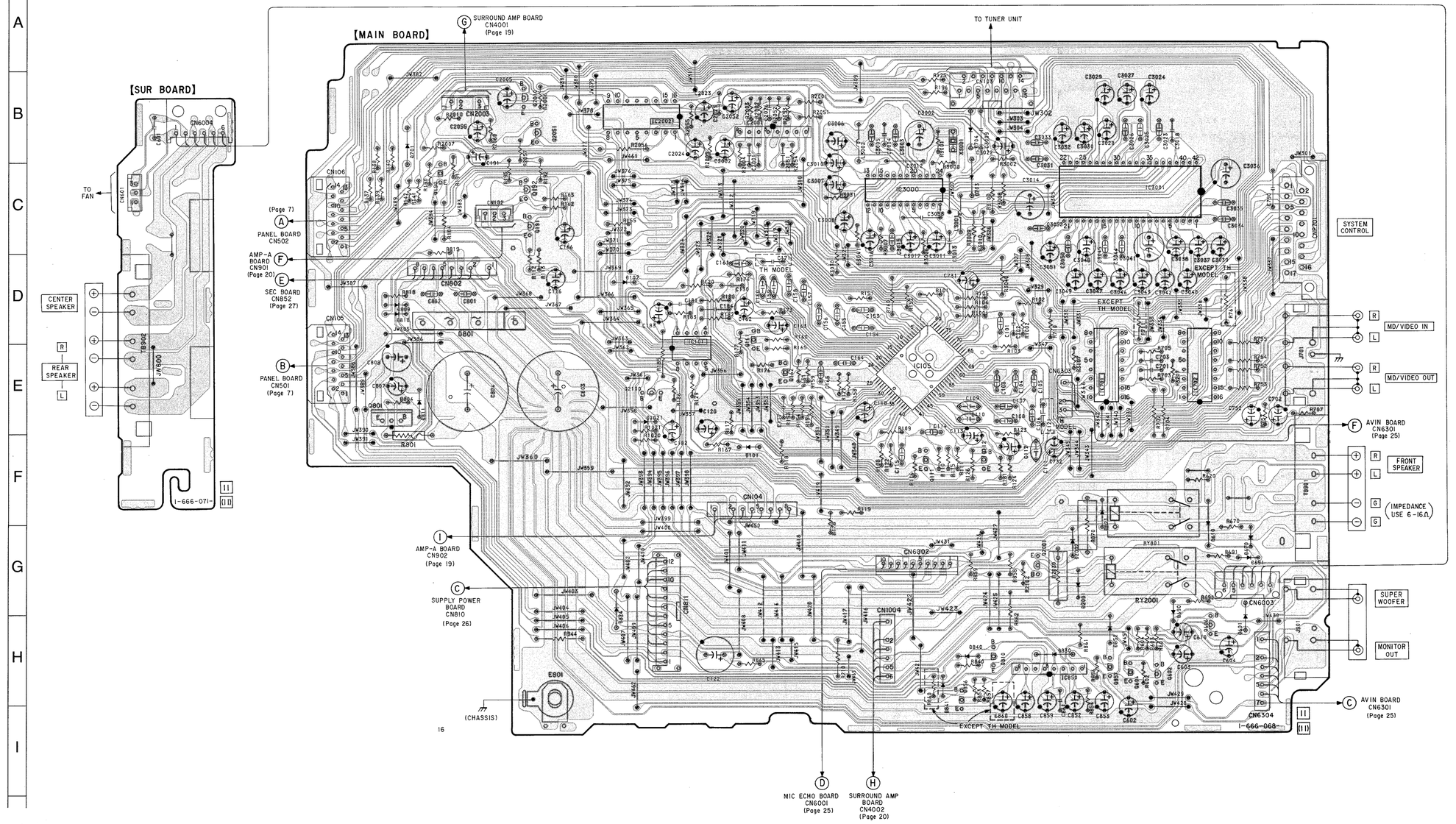
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : Internal component.
- B+ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  No mark: FM
- Voltages are taken with a VOM (Input impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.

3-4. PRINTED WIRING BOARD — MAIN SECTION —

• **Semiconductor Location**

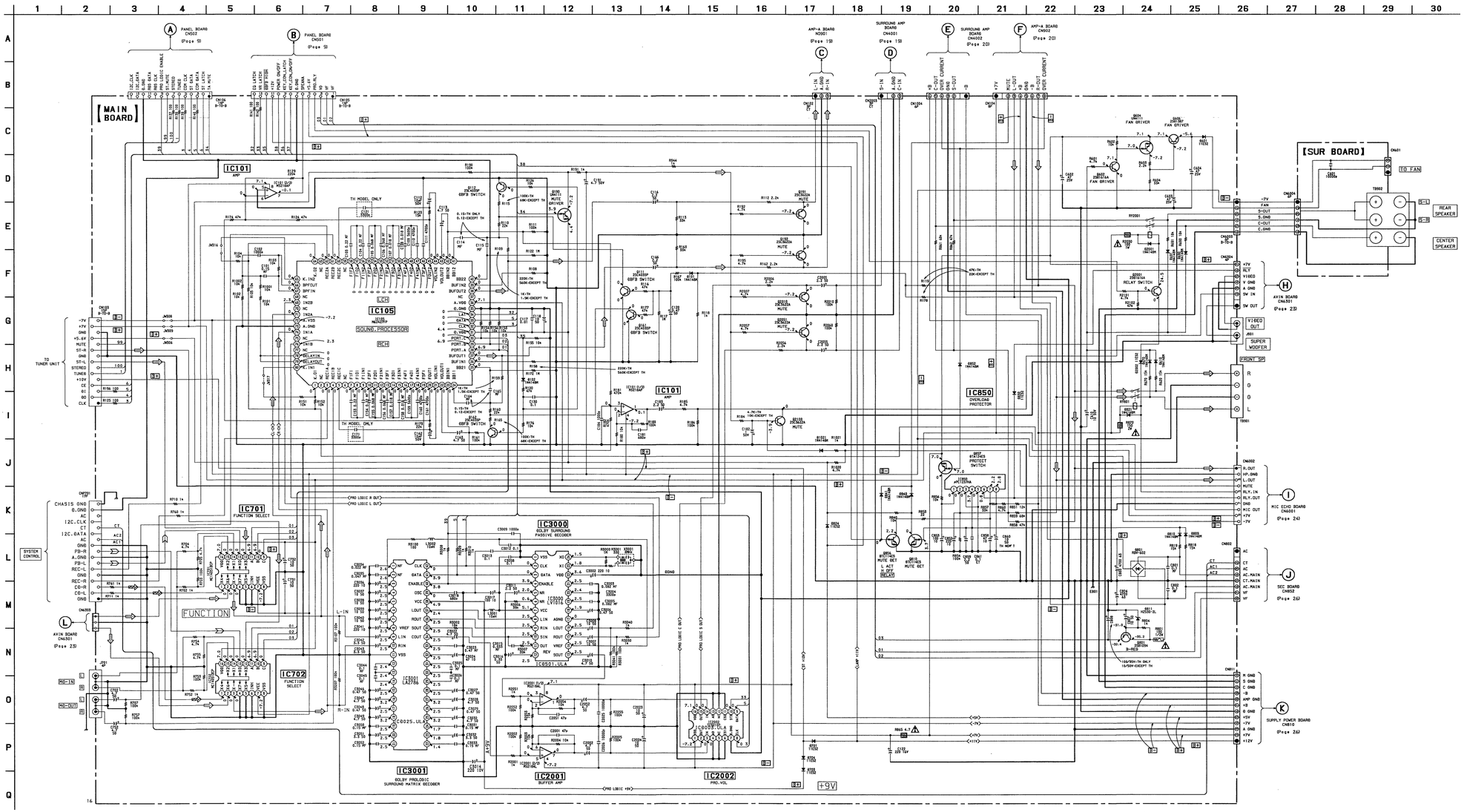
Ref. No.	Location
D101	H-8
D102	D-7
D601	H-14
D610	G-13
D670	G-14
D690	G-13
D691	G-14
D701	B-5
D703	C-11
D704	B-11
D801	D-5
D809	D-4
D810	D-4
D811	E-5
D821	F-12
D824	H-7
D830	H-12
D840	H-11
D841	H-10
D852	H-12
D1021	E-7
D2001	G-12
D2002	G-12
IC101	E-8
IC105	E-10
IC701	E-12
IC702	E-13
IC850	H-12
IC2001	B-8
IC2002	B-7
IC3000	C-10
IC3001	C-12
Q111	F-10
Q112	F-11
Q161	D-8
Q162	E-7
Q190	C-5
Q191	C-6
Q192	C-6
Q602	H-13
Q604	H-12
Q606	H-12
Q801	E-4
Q810	H-11
Q856	H-11
Q857	H-12
Q2001	G-11
Q2010	B-6
Q2051	B-6
Q2100	E-7



Note:

• ——— :parts extracted from the component side.
• ▒▒▒▒▒ :parts on the side which is seen.
• Abbreviation
TH : Thai

3-5. SCHEMATIC DIAGRAM — MAIN SECTION —



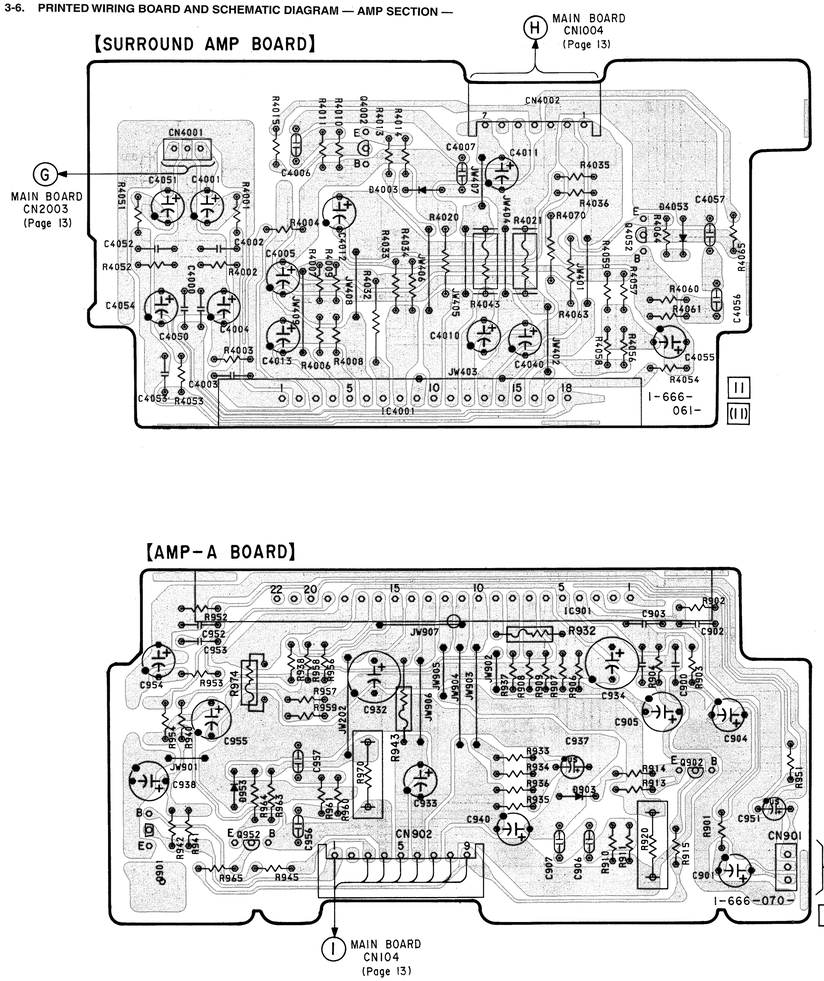
Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : Internal component.
- B+ : B+ Line.
- B– : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  No mark: FM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.

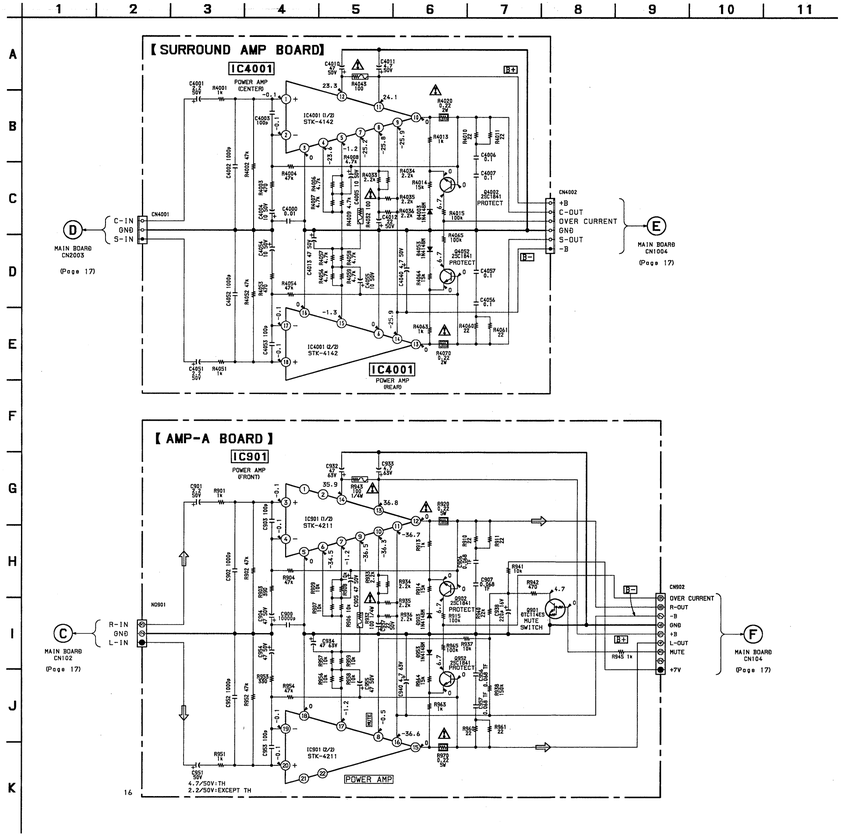
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- Signal path
  - ⇨ : TUNER/AUDIO
  - ⇨ : PB
  - ⇨ : CD
- Abbreviation
  TH : THai

3-6. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM — AMP SECTION —



Note: (Printed Wiring Board)
- ⟵ : parts extracted from the component side.
- ═══ : parts on the side which is seen.

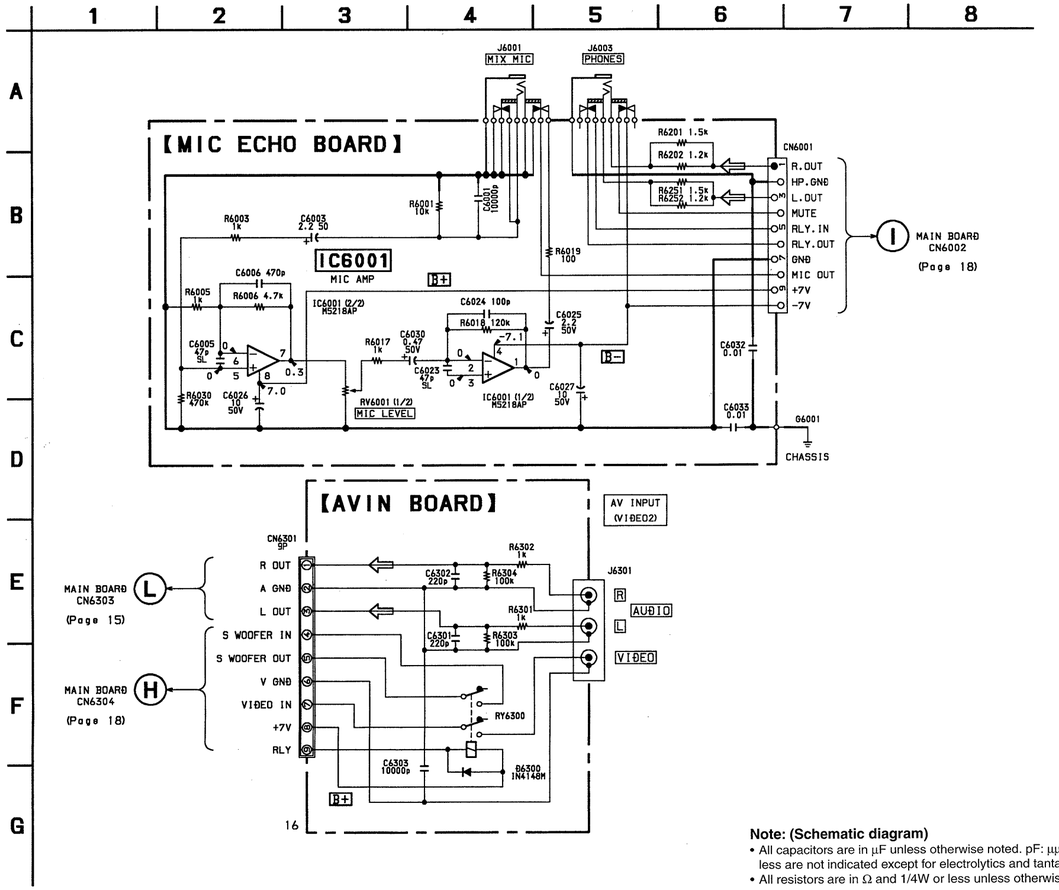


Note: (Schematic Diagram)
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : Internal component.
- B+ : B+ Line.
- B− : B− Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  No mark: FM
- Voltages are taken with a VOM (Input impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Signal path
  ⇨ : AUDIO

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

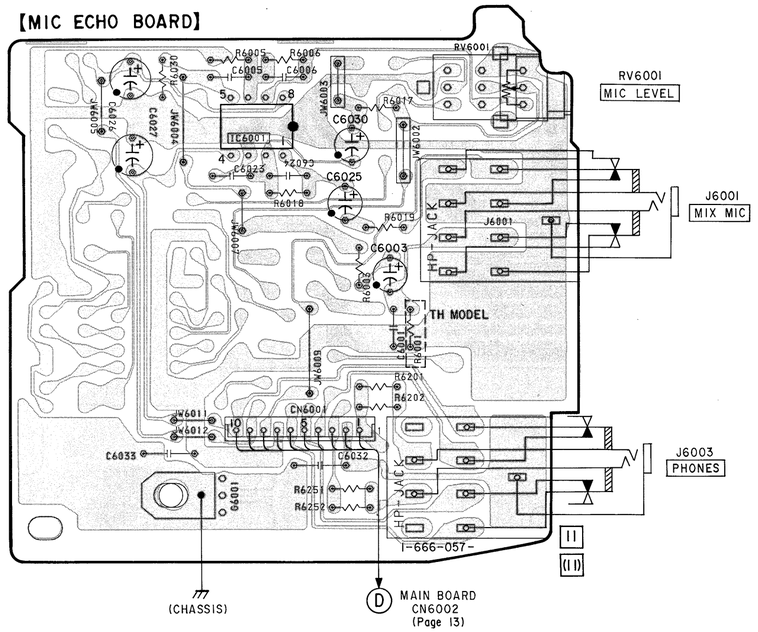
- Abbreviation
  TH : Thai

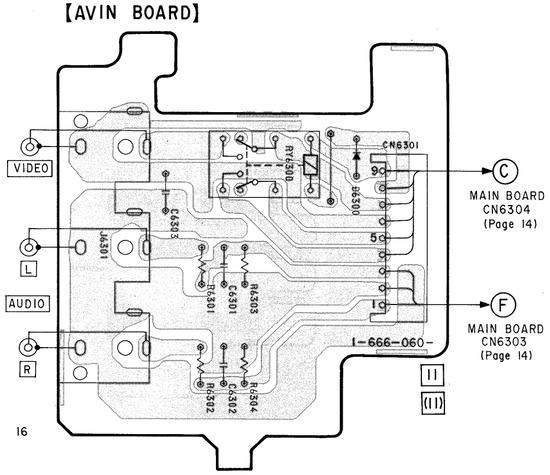
3-7. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM — MIC ECHO/AV IN SECTION —



Note: (Schematic diagram)

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : Internal component.
- B+ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  No mark: FM
- Voltages are taken with a VOM (Input impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.

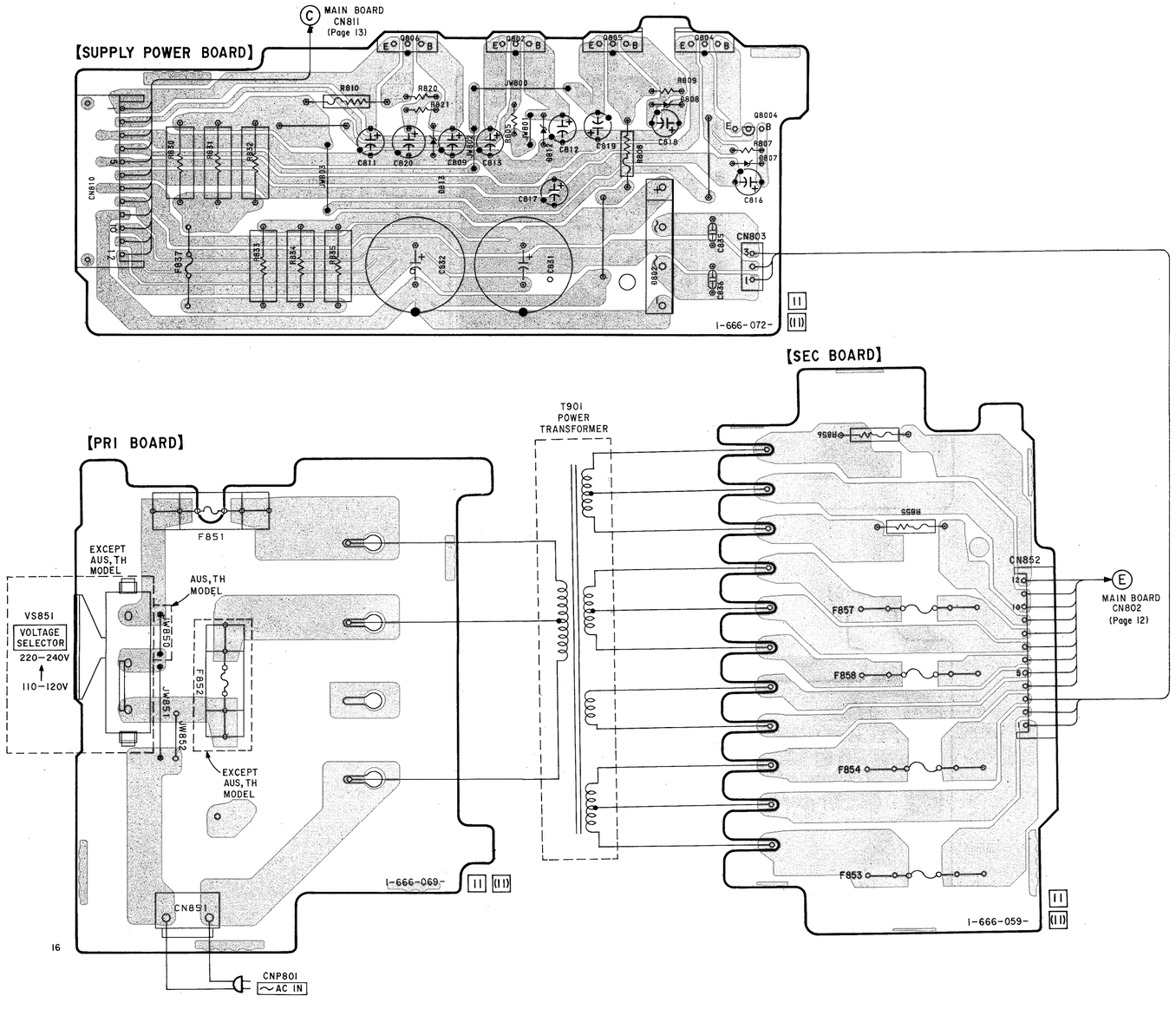


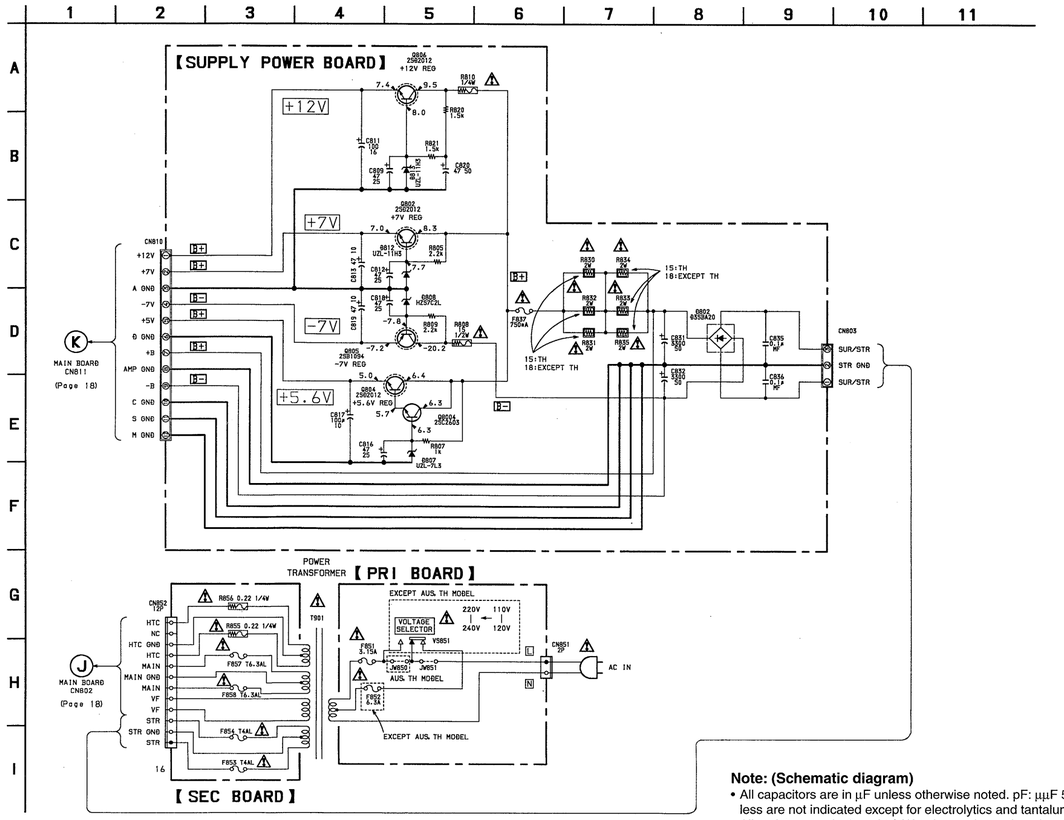


Note: (Printed Wiring Board)

- ⟷ :parts extracted from the component side.
- ═══ :parts on the side which is seen.
- Signal Path
  ⇨ : AUDIO

3-8. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM — POWER SECTION —





Note: (Schematic diagram)

- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : Internal component.
- B+ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  No mark: FM
- Voltages are taken with a VOM (Input impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note: (Printed Wiring Board)

- ——o—— :parts extracted from the component side.
- ═══ :parts on the side which is seen.

- Abbreviations
  TH : Thai
  AUS : Australian

3-9. IC PIN FUNCTION

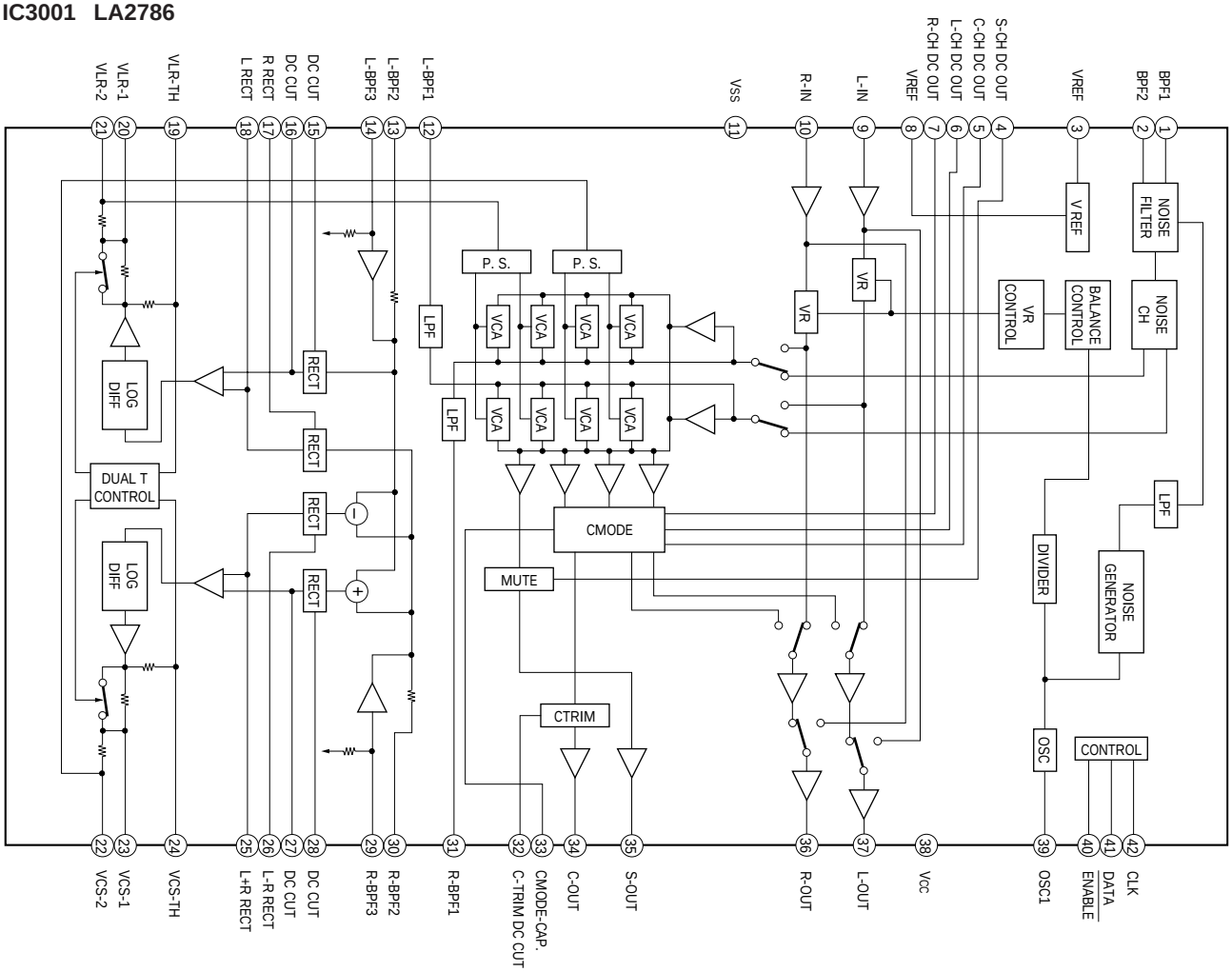
• IC501 TMP87CM75F-6623 (DISPLAY CONTROL)

Pin No.	Pin Name	I/O	Description
1	NC	—	Not used
2	VG	—	Power supply (–35V)
3	COM CLK	O	Transfer clock output serial data
4	ST DATA IN	I	Serial data input
5	COM DATA	O	Serial data output
6	ST CE	O	Chip enable output
7	LED LAT	O	Latch output to IC504
8	POWER ON/OFF	O	H : D542, D543 ON
9	STEREO	I	Stereo signal input
10	TUNED	I	Tuned signal input
11	Vss	—	Power supply (Ground)
12	X OUT	O	Oscillator connection terminal (8MHz)
13	X IN	I	Oscillator connection terminal (8MHz)
14	RESET	I	Reset signal input terminal
15	XT OUT	O	Oscillator connection terminal (32.768kHz)
16	XT IN	I	Oscillator connection terminal (32.768kHz)
17	GND	—	Not used (Ground)
18	BACK UP	I	AC Power supply off
19	RDS DATA	I	RDS DATA input
20	RDS CLK	I	RDS clock input
21	SIRCS IN	I	SIRCS signal input
22	JOG IN B	I	JOG dial encoder input
23	VOL IN B	I	Volum encoder input
24	VOL IN A	I	Volum encoder input
25	JOG IN A	I	JOG dial encoder input
26	AUB IN	—	Not used
27	12C CLK	I/O	12C clock I/O
28	12C DATA	I/O	12C data I/O
29	AUB OUT	—	Not used
30	VDD	—	Power supply (5V)
31	Vss	—	Power supply (Ground)
32	EQ LAT	O	Latch output to IC105
33	VR LAT	O	Latch output to IC2002
34	TA MUTE	O	Mute output to transistor L : Mute ON
35	VIDEO MD	O	DBFB level control output L : DBFB HIGH
36	KEY CON LAT	O	Latch output to IC6003
37	KEY CON ON/OFF	O	H : Key con ON
38	POWER ON/OFF	O	L : SP relay ON
39	P LOG RELAY	—	Not used
40	KEY IN 0	I	Key data input (A/D converter)
41	KEY IN 1	I	Key data input (A/D converter)
42	KEY IN 2	I	Key data input (A/D converter)
43	SPEANA 0	I	Spectrum analyzer signal input
44	SPEANA 1	I	Spectrum analyzer signal input
45	SPEANA 2	I	Spectrum analyzer signal input
46	SPEANA 3	I	Spectrum analyzer signal input
47	SUFFIX	I	Input for model select
48	VASS	—	Power supply for analog (Ground)
49	VAREF	—	Power supply (+5V)
50	VDD	—	Power supply (Ground)

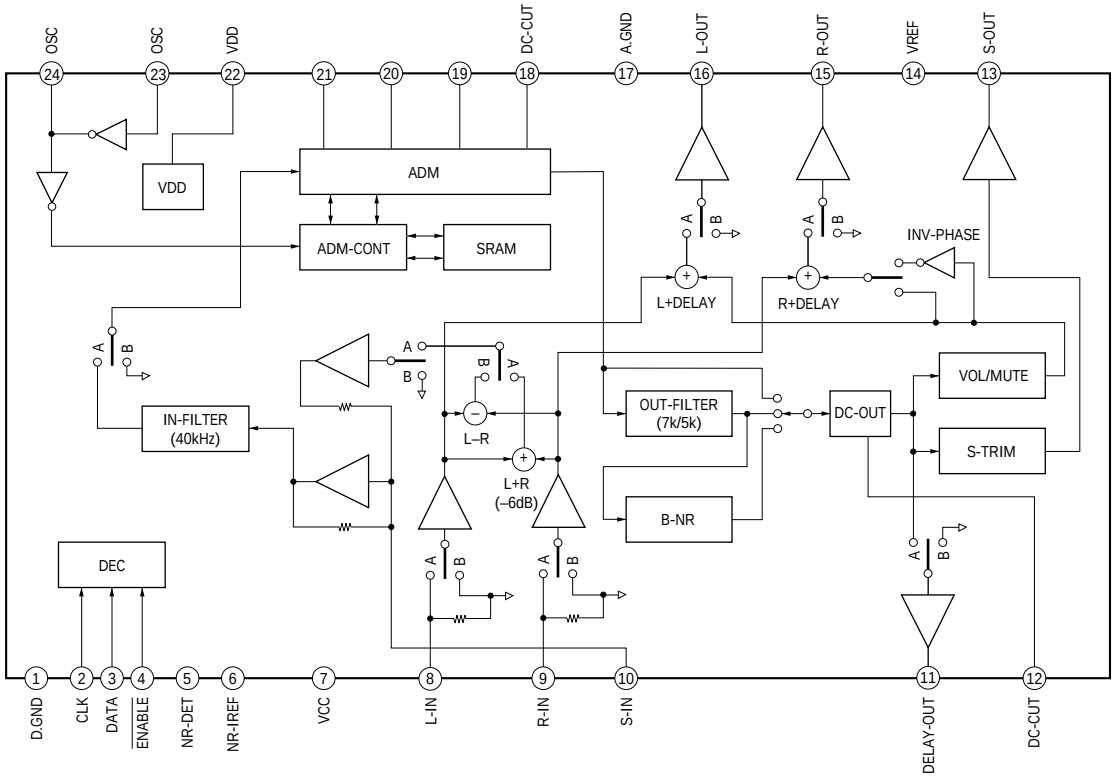
Pin No.	Pin Name	I/O	Description
51	FL–1G	O	
52	FL–2G	O	
53	FL–3G	O	
54	FL–4G	O	
55	FL–5G	O	
56	FL–6G	O	
57	FL–7G	O	Grid output to FL501
58	FL–8G	O	
59	FL–9G	O	
60	FL–10G	O	
61	FL–11G	O	
62	FL–12G	O	
63	FL–13G	O	
64	FL–14G	O	
65	FL–P1	O	
66	FL–P2	O	
67	FL–P3	O	
68	FL–P4	O	
69	FL–P5	O	
70	FL–P6	O	
71	FL–P7	O	
72	FL–P8	O	
73	FL–P9	O	
74	FL–P10	O	
75	FL–P11	O	
76	FL–P12	O	
77	FL–P13	O	
78	FL–P14	O	
79	FL–P15	O	
80	FL–P16	O	
81	FL–P17	O	Segment output to FL501
82	FL–P18	O	
83	FL–P19	O	
84	FL–P20	O	
85	FL-P21	O	
86	FL–P22	O	
87	FL–P23	O	
88	FL–P24	O	
89	FL–P25	O	
90	FL–P26	O	
91	FL–P27	O	
92	FL–P28	O	
93	FL–P29	O	
94	FL–P30	O	
95	FL–P31	O	
96	FL–P32	O	
97	FL–P33	O	
98	FL–P34	O	
99	ST MUTE	O	H : MUTE L : Signal Receiving
100	NC	—	Not used

3-10. IC BLOCK DIAGRAMS

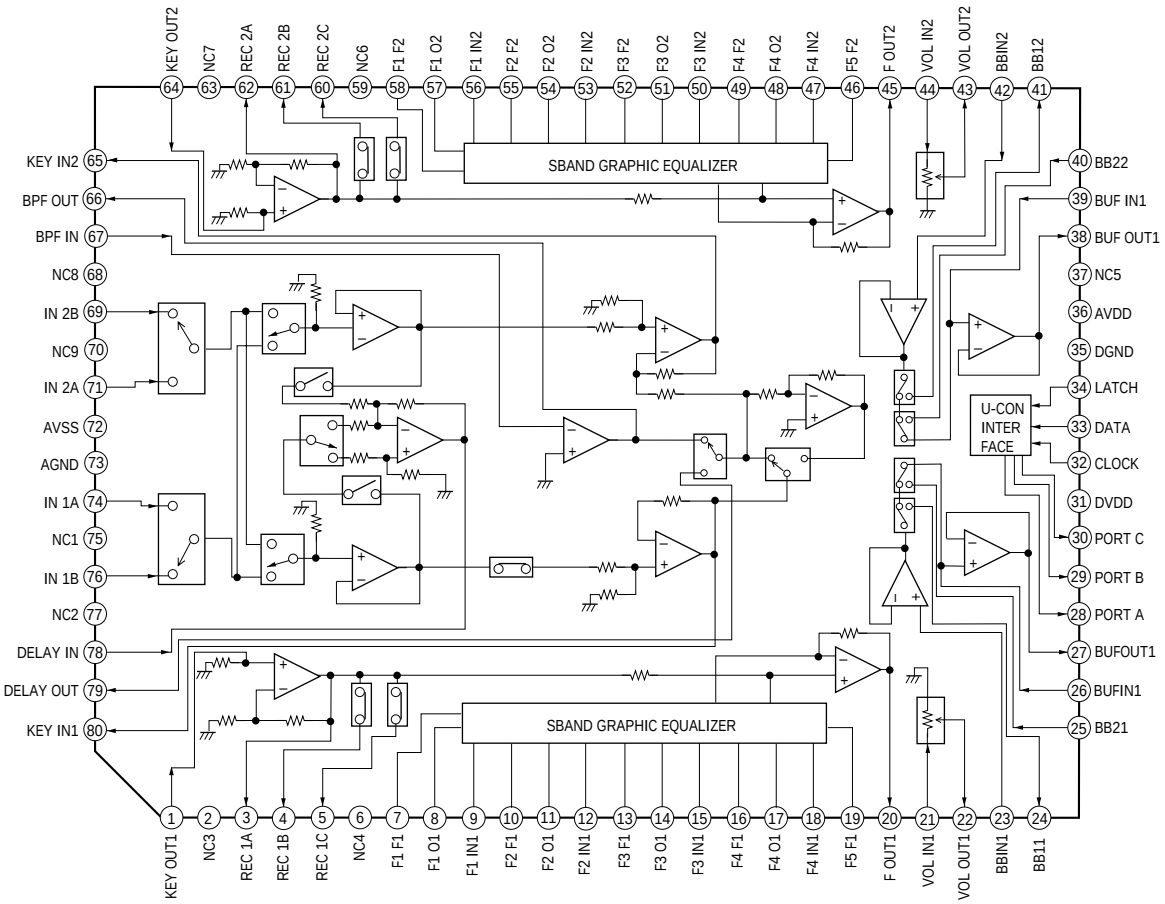
IC3001 LA2786



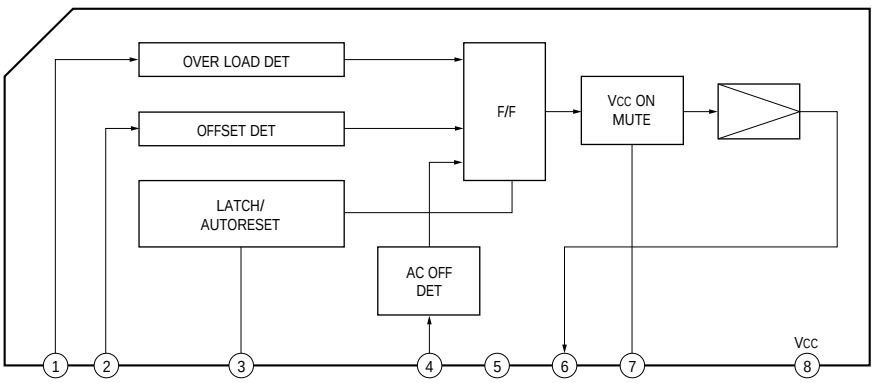
IC3000 LV1016



IC105 M62427FP-A



IC850 μPC1237HA



SECTION 4
EXPLODED VIEWS

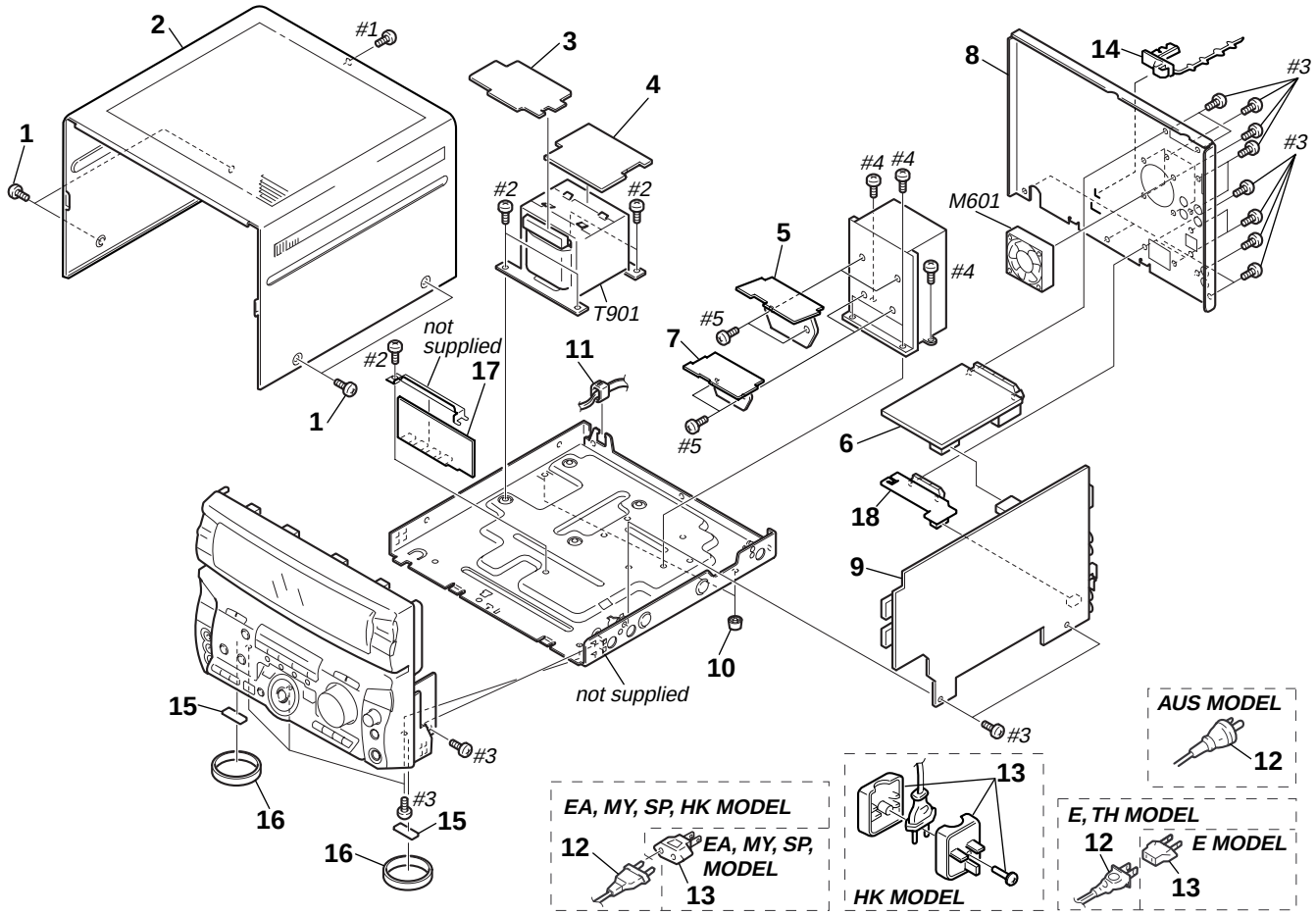
Note:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviations

TH	: Thai	SP	: Singapore
HK	: Hong Kong	EA	: Saudi Arabia
AUS	: Australian	MY	: Malaysia

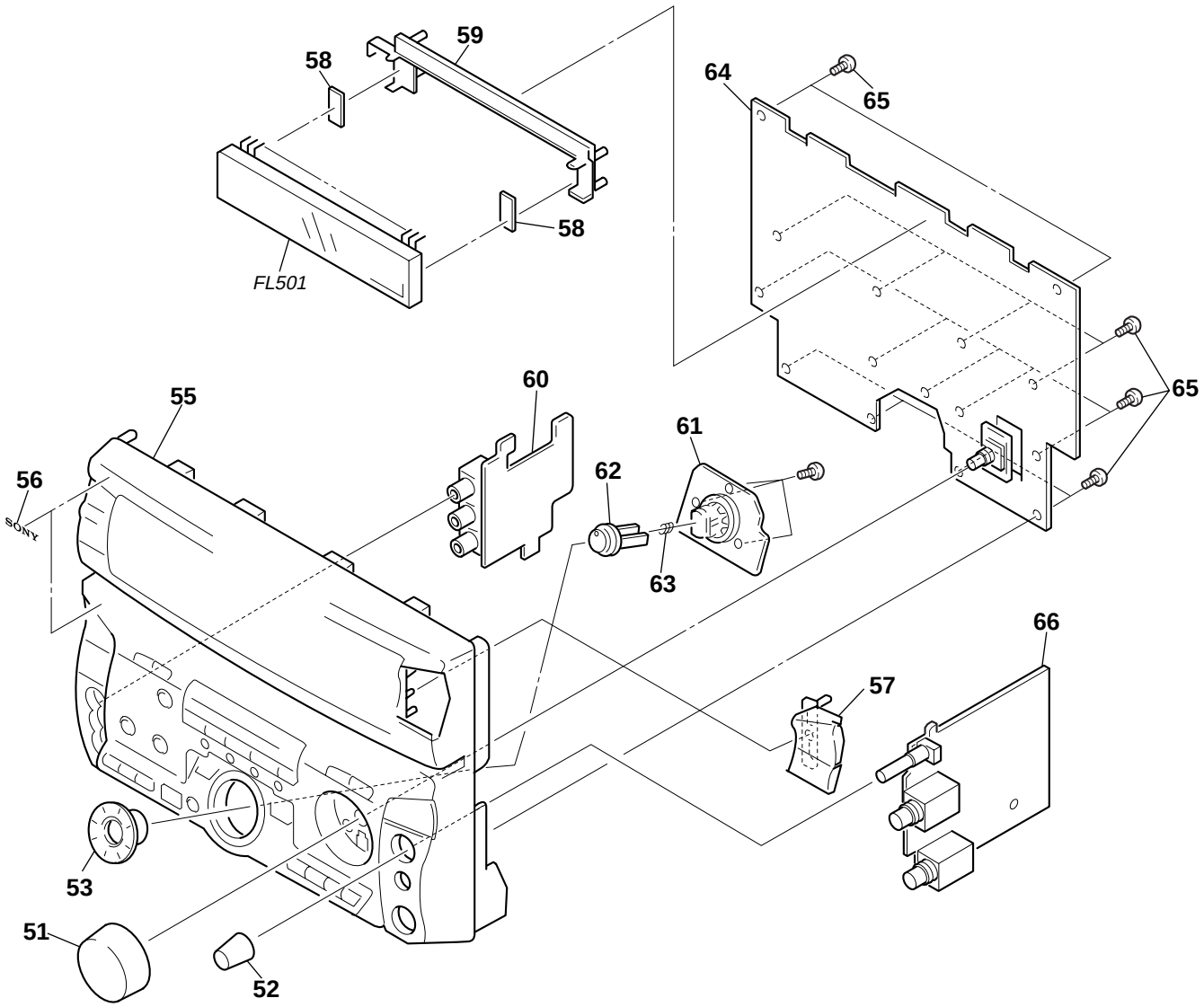
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remarks
1	3-363-099-11	SCREW (CASE 3 TP2)	
* 2	4-991-364-11	CASE	
* 3	1-666-059-11	SEC BOARD	
* 4	1-666-069-11	PRI BOARD	
* 5	A-4398-466-A	SURROUND AMP BOARD, COMPLETE (EXCEPT TH)	
* 5	A-4403-217-A	SURROUND AMP BOARD, COMPLETE (TH)	
6	1-233-545-21	ENCAPSULATED COMPONENT (AUS,TH)	
6	1-233-546-21	ENCAPSULATED COMPONENT (EXCEPT AUS,TH)	
* 7	1-666-070-11	AMP-A BOARD	
* 8	4-991-362-01	PANEL (WH3), BACK (E)	
* 8	4-991-362-11	PANEL (WH3), BACK (MY,SP)	
* 8	4-991-362-21	PANEL (WH3), BACK (HK)	
* 8	4-991-362-31	PANEL (WH3), BACK (AUS)	
* 8	4-991-362-41	PANEL (WH3), BACK (TH)	
* 8	4-991-362-51	PANEL (WH3), BACK (EA)	
* 9	A-4398-455-A	MAIN BOARD, COMPLETE (EXCEPT AUS,TH)	
* 9	A-4398-456-A	MAIN BOARD, COMPLETE (AUS)	
* 9	A-4403-208-A	MAIN BOARD, COMPLETE (TH)	
10	4-970-381-11	FOOT (REAR)	
* 11	3-703-244-00	BUSHING (2104), CORD (EXCEPT TH)	
11	3-703-571-11	BUSHING (S) (4516), CORD (TH)	
⚠12	1-690-608-11	CORD, POWER (AUS)	
⚠12	1-751-326-31	CORD, POWER (TH)	
⚠12	1-777-071-21	CORD, POWER (EA,HK,MY,SP)	
⚠12	1-782-315-11	CORD, POWER (E)	
⚠13	1-569-007-11	ADAPTOR, CONVERSION 2P (E)	
⚠13	1-569-008-21	ADAPTOR, CONVERSION 2P (EA,MY,SP)	
⚠13	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
14	4-956-370-12	BAND, PLUG FIXED (HK,AUS)	
15	4-977-358-11	CUSHION (8X12.5)	
16	4-970-385-41	ORNAMENT (FOOT)	
* 17	A-4398-997-A	SUPPLY POWER BOARD, COMPLETE	
* 18	1-666-071-11	SUR BOARD	
* 19	3-378-760-01	CUSHION, FIBER	
M601	1-698-792-11	FAN, DC	
⚠T901	1-431-363-11	TRANSFORMER, POWER	

4-2. PANEL SECTION



Ref. No.	Part No.	Description	Remarks
51	4-991-318-01	KNOB (VOL)	
52	4-991-324-01	KNOB (MIC)	
53	4-991-317-01	KNOB (JOG)	
55	X-4948-613-1	PANEL ASSY, FRONT	
56	4-962-708-11	EMBLEM (4-A), SONY	
57	X-4948-612-1	DISPLAY ASSY, BUTTON	
* 58	4-932-810-11	CUSHION (FL)	
* 59	4-986-870-01	HOLDER, FL TUBE	
* 60	1-666-060-11	AVIN BOARD	
* 61	1-666-062-11	JOG BOARD	
62	X-4948-611-1	BUTTON (E/N) ASSY	
63	4-984-085-01	SPRING (ENTER), COMPRESSION	
* 64	A-4398-467-A	PANEL BOARD, COMPLETE (EXCEPT AUS,TH)	
* 64	A-4398-468-A	PANEL BOARD, COMPLETE (AUS)	
* 64	A-4403-218-A	PANEL BOARD, COMPLETE (TH)	
65	4-951-620-01	SCREW (2.6X8), +BVTP	
* 66	1-666-057-11	MIC ECHO BOARD	
FL501	1-517-618-11	INDICATOR TUBE, FLUORESCENT	

SECTION 5
ELECTRICAL PARTS LIST

AMP-A

Note:

When indicating parts by reference number, please include the board naame.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- Abbre viations
  TH : Thai SP : Singapore
  HK : Hong K ong EA : Saudi Ar abia
  AUS : Austr alian MY : Malaysia
- Due to standardization, replacements in the par ts list ma y be different from the par ts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may ha ve some diff erence from the or iginal one .
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESIST ORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- SEMICONDUCT ORS
  In each case, u: µ, for example:
  uA...: µA... , uP A... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

Ref. No.	Part No.	Description				Remarks
*	1-666-070-11	AMP-A BOARD				
		**********				
		< CAPACITOR >				
C900	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C901	1-126-961-11	ELECT	2.2uF	20%	50V	
C902	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C903	1-162-282-31	CERAMIC	100PF	10%	50V	
C904	1-126-967-11	ELECT	47uF	20%	50V	
C905	1-126-967-11	ELECT	47uF	20%	50V	
C906	1-136-495-11	FILM	0.068uF	5%	50V	
C907	1-136-495-11	FILM	0.068uF	5%	50V	
C932	1-128-552-51	ELECT	47uF	20%	63V	
C933	1-128-581-11	ELECT	4.7uF	20%	63V	
C934	1-128-552-51	ELECT	47uF	20%	63V	
C937	1-126-965-11	ELECT	22uF	20%	50V	
C938	1-126-934-11	ELECT	220uF	20%	16V	
C940	1-128-581-11	ELECT	4.7uF	20%	63V	
C951	1-126-961-11	ELECT	2.2uF	20%	50V	(EXCEPT TH)
C951	1-126-963-11	ELECT	4.7uF	20%	50V	(TH)
C952	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C953	1-162-282-31	CERAMIC	100PF	10%	50V	
C954	1-126-967-11	ELECT	47uF	20%	50V	
C955	1-126-967-11	ELECT	47uF	20%	50V	
C956	1-136-495-11	FILM	0.068uF	5%	50V	
C957	1-136-495-11	FILM	0.068uF	5%	50V	
		< CONNECTOR >				
CN902	1-564-524-11	PLUG, CONNECTOR 9P				
		< DIODE >				
D903	8-719-987-63	DIODE 1N4148M				
D953	8-719-987-63	DIODE 1N4148M				
		< IC >				
IC901	8-749-921-04	IC STK-4211MK-2				
		< TRANSISTOR >				
Q901	8-729-900-80	TRANSISTOR DTC114ES				
Q902	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
Q952	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				

Ref. No.	Part No.	Description				Remarks
		< RESISTOR >				
R901	1-249-417-11	CARBON	1K	5%	1/4W	F
R902	1-249-437-11	CARBON	47K	5%	1/4W	
R903	1-249-411-11	CARBON	330	5%	1/4W	
R904	1-249-437-11	CARBON	47K	5%	1/4W	
R906	1-249-429-11	CARBON	10K	5%	1/4W	
R907	1-249-429-11	CARBON	10K	5%	1/4W	
R908	1-249-429-11	CARBON	10K	5%	1/4W	
R909	1-249-429-11	CARBON	10K	5%	1/4W	
R910	1-249-397-11	CARBON	22	5%	1/4W	F
R911	1-249-397-11	CARBON	22	5%	1/4W	F
R913	1-249-417-11	CARBON	1K	5%	1/4W	F
R914	1-249-431-11	CARBON	15K	5%	1/4W	
R915	1-249-441-11	CARBON	100K	5%	1/4W	
⚠R920	1-217-156-00	WIREWOUND	0.22	10%	5W	F
⚠R932	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R933	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R934	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R935	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R936	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R937	1-249-429-11	CARBON	10K	5%	1/4W	
R938	1-247-883-00	CARBON	150K	5%	1/4W	
R940	1-249-433-11	CARBON	22K	5%	1/4W	
R941	1-249-429-11	CARBON	10K	5%	1/4W	
R942	1-249-413-11	CARBON	470	5%	1/4W	F
⚠R943	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R944	1-249-417-11	CARBON	1K	5%	1/4W	F
R945	1-249-417-11	CARBON	1K	5%	1/4W	F
R951	1-249-417-11	CARBON	1K	5%	1/4W	F
R952	1-249-437-11	CARBON	47K	5%	1/4W	
R953	1-249-411-11	CARBON	330	5%	1/4W	
R954	1-249-437-11	CARBON	47K	5%	1/4W	
R956	1-249-429-11	CARBON	10K	5%	1/4W	
R957	1-249-429-11	CARBON	10K	5%	1/4W	
R958	1-249-429-11	CARBON	10K	5%	1/4W	
R959	1-249-429-11	CARBON	10K	5%	1/4W	
R960	1-249-397-11	CARBON	22	5%	1/4W	F
R961	1-249-397-11	CARBON	22	5%	1/4W	F
R963	1-249-417-11	CARBON	1K	5%	1/4W	F
R964	1-249-431-11	CARBON	15K	5%	1/4W	
R965	1-249-441-11	CARBON	100K	5%	1/4W	
⚠R970	1-217-156-00	WIREWOUND	0.22	10%	5W	F
**********						

AVIN **JOG** **MAIN**

Ref. No.	Part No.	Description				Remarks
*	1-666-060-11	AVIN BOARD				
		**********				
		< CAPACITOR >				
C6301	1-162-286-31	CERAMIC	220PF	10%	50V	
C6302	1-162-286-31	CERAMIC	220PF	10%	50V	
C6303	1-162-306-11	CERAMIC	0.01uF	20%	16V	
		< CONNECTOR >				
CN6301	1-564-524-11	PLUG, CONNECTOR 9P				
		< DIODE >				
D6300	8-719-987-63	DIODE 1N4148M				
		< JACK >				
J6301	1-779-583-11	JACK, PIN 3P (AV INPUT)				
		< RESISTOR >				
R6301	1-249-417-11	CARBON	1K	5%	1/4W F	
R6302	1-249-417-11	CARBON	1K	5%	1/4W F	
R6303	1-249-441-11	CARBON	100K	5%	1/4W	
R6304	1-249-441-11	CARBON	100K	5%	1/4W	
		< RELAY >				
RY6300	1-515-622-11	RELAY				
**********						
*	1-666-062-11	JOG BOARD				
		*********				
		< DIODE >				
D512	8-719-046-44	DIODE SEL5221S				
D513	8-719-046-44	DIODE SEL5221S				
D514	8-719-046-44	DIODE SEL5221S				
		< RESISTOR >				
R537	1-249-407-11	CARBON	150	5%	1/4W F	
R538	1-249-401-11	CARBON	47	5%	1/4W F	
R541	1-249-419-11	CARBON	1.5K	5%	1/4W F	
R644	1-249-429-11	CARBON	10K	5%	1/4W	
R645	1-249-429-11	CARBON	10K	5%	1/4W	
		< SWITCH >				
S534	1-762-751-11	SWITCH, TACTILE (ENTER/NEXT)				
S536	1-762-874-11	SWITCH, JOG (MULTI JOG STATION)				
**********						
*	A-4398-455-A	MAIN BOARD, COMPLETE (EXCEPT AUS TH)				
		**********				
*	A-4398-456-A	MAIN BOARD, COMPLETE (AUS)				
		**********				
*	A-4403-208-A	MAIN BOARD, COMPLETE (TH)				
		**********				
		< CAPACITOR >				
C101	1-136-167-00	FILM	0.15uF	5%	50V	
C102	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C103	1-136-169-00	FILM	0.22uF	5%	50V	
C104	1-136-169-00	FILM	0.22uF	5%	50V	
C105	1-137-375-11	FILM	0.068uF	5%	50V	

Ref. No.	Part No.	Description			Remarks
C106	1-137-375-11	FILM	0.068uF	5%	50V
C107	1-137-440-11	FILM	0.018uF	5%	50V
C108	1-137-440-11	FILM	0.018uF	5%	50V
C109	1-137-437-11	FILM	0.0056uF	5%	50V
C110	1-130-479-00	MYLAR	0.0047uF	5%	50V
C111	1-130-479-00	MYLAR	0.0047uF	5%	50V
C112	1-126-964-11	ELECT	10uF	20%	50V
C113	1-126-963-11	ELECT	4.7uF	20%	50V
C114	1-136-167-00	FILM	0.15uF	5%	50V (TH)
C114	1-136-166-00	FILM	0.12uF	5%	50V (EXCEPT TH)
C115	1-136-167-00	FILM	0.15uF	5%	50V (TH)
C115	1-136-166-00	FILM	0.12uF	5%	50V (EXCEPT TH)
C116	1-126-961-11	ELECT	2.2uF	20%	50V
C117	1-162-306-11	CERAMIC	0.01uF	20%	16V
C118	1-126-964-11	ELECT	10uF	20%	50V
C120	1-126-959-11	ELECT	0.47uF	20%	50V
C121	1-162-303-11	CERAMIC	0.0033uF	30%	16V (TH)
C122	1-126-934-11	ELECT	220uF	20%	16V
C130	1-164-159-11	CERAMIC	0.1uF		50V
C153	1-136-169-00	FILM	0.22uF	5%	50V
C154	1-136-169-00	FILM	0.22uF	5%	50V
C155	1-137-375-11	FILM	0.068uF	5%	50V
C156	1-137-375-11	FILM	0.068uF	5%	50V
C157	1-137-440-11	FILM	0.018uF	5%	50V
C158	1-137-440-11	FILM	0.018uF	5%	50V
C159	1-137-437-11	FILM	0.0056uF	5%	50V
C160	1-130-479-00	MYLAR	0.0047uF	5%	50V
C161	1-130-479-00	MYLAR	0.0047uF	5%	50V
C162	1-126-964-11	ELECT	10uF	20%	50V
C163	1-126-963-11	ELECT	4.7uF	20%	50V
C164	1-136-167-00	FILM	0.15uF	5%	50V (TH)
C164	1-136-166-00	FILM	0.12uF	5%	50V (EXCEPT TH)
C165	1-136-167-00	FILM	0.15uF	5%	50V (TH)
C165	1-136-166-00	FILM	0.12uF	5%	50V (EXCEPT TH)
C166	1-126-961-11	ELECT	2.2uF	20%	50V
C171	1-162-303-11	CERAMIC	0.0033uF	30%	16V (TH)
C181	1-162-292-31	CERAMIC	680PF	10%	50V
C182	1-126-960-11	ELECT	1uF	20%	50V
C183	1-126-961-11	ELECT	2.2uF	20%	50V
C184	1-162-294-31	CERAMIC	0.001uF	10%	50V
C191	1-126-963-11	ELECT	4.7uF	20%	50V
C602	1-104-664-11	ELECT	47uF	20%	25V
C603	1-104-664-11	ELECT	47uF	20%	25V
C604	1-104-664-11	ELECT	47uF	20%	25V
C610	1-126-964-11	ELECT	10uF	20%	50V
C702	1-126-963-11	ELECT	4.7uF	20%	50V
C731	1-126-964-11	ELECT	10uF	20%	50V
C732	1-126-964-11	ELECT	10uF	20%	50V
C752	1-126-963-11	ELECT	4.7uF	20%	50V
C801	1-136-165-00	FILM	0.1uF	5%	50V

Ref. No.	Part No.	Description			Remarks
C802	1-136-165-00	FILM	0.1uF	5%	50V
C803	1-104-482-11	ELECT	4700uF	20%	63V
C804	1-104-482-11	ELECT	4700uF	20%	63V
C807	1-126-964-11	ELECT	10uF	20%	50V
C808	1-126-948-11	ELECT	100uF	20%	35V (TH)
C808	1-126-964-11	ELECT	10uF	20%	50V (EXCEPT TH)
C852	1-126-923-11	ELECT	220uF	20%	10V
C853	1-126-933-11	ELECT	100uF	20%	10V
C858	1-126-967-11	ELECT	47uF	20%	10V
C859	1-126-961-11	ELECT	2.2uF	20%	50V
C860	1-126-964-11	ELECT	10uF	20%	50V (EXCEPT TH)
C861	1-164-159-11	CERAMIC	0.1uF		50V
C2001	1-162-215-31	CERAMIC	47PF	5%	50V
C2002	1-126-963-11	ELECT	4.7uF	20%	50V
C2005	1-126-961-11	ELECT	2.2uF	20%	50V
C2023	1-126-964-11	ELECT	10uF	20%	50V
C2024	1-126-964-11	ELECT	10uF	20%	50V
C2025	1-162-306-11	CERAMIC	0.01uF	20%	16V
C2026	1-162-306-11	CERAMIC	0.01uF	20%	16V
C2051	1-162-215-31	CERAMIC	47PF	5%	50V
C2052	1-126-963-11	ELECT	4.7uF	20%	50V
C2055	1-126-961-11	ELECT	2.2uF	20%	50V
C3002	1-126-923-11	ELECT	220uF	20%	10V
C3003	1-136-164-00	FILM	0.082uF	5%	50V
C3004	1-162-303-11	CERAMIC	0.0033uF	30%	16V
C3005	1-136-164-00	FILM	0.082uF	5%	50V
C3006	1-126-959-11	ELECT	0.47uF	20%	50V
C3007	1-126-964-11	ELECT	10uF	20%	50V
C3008	1-126-964-11	ELECT	10uF	20%	50V
C3009	1-162-294-31	CERAMIC	0.001uF	10%	50V
C3010	1-126-963-11	ELECT	4.7uF	20%	50V
C3011	1-126-961-11	ELECT	2.2uF	20%	50V
C3012	1-164-159-11	CERAMIC	0.1uF		50V
C3013	1-164-159-11	CERAMIC	0.1uF		50V
C3014	1-126-923-11	ELECT	220uF	20%	10V
C3015	1-136-159-00	FILM	0.033uF	5%	50V
C3016	1-124-252-00	ELECT	0.33uF	20%	50V
C3017	1-126-933-11	ELECT	100uF	20%	10V
C3018	1-162-292-31	CERAMIC	680PF	10%	50V
C3022	1-126-963-11	ELECT	4.7uF	20%	50V
C3023	1-136-173-00	FILM	0.47uF	5%	50V
C3024	1-126-967-11	ELECT	47uF	20%	10V
C3025	1-136-165-00	FILM	0.1uF	5%	50V
C3026	1-136-165-00	FILM	0.1uF	5%	50V
C3027	1-126-959-11	ELECT	0.47uF	20%	50V
C3028	1-126-963-11	ELECT	4.7uF	20%	50V
C3029	1-126-959-11	ELECT	0.47uF	20%	50V
C3030	1-126-963-11	ELECT	4.7uF	20%	50V
C3031	1-136-167-00	FILM	0.15uF	5%	50V
C3032	1-126-962-11	ELECT	3.3uF	20%	50V
C3033	1-136-167-00	FILM	0.15uF	5%	50V
C3034	1-136-157-00	FILM	0.022uF	5%	50V
C3035	1-136-161-00	FILM	0.047uF	5%	50V
C3036	1-126-923-11	ELECT	220uF	20%	10V
C3037	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remarks
C3038	1-126-964-11	ELECT	10uF	20%	50V
C3039	1-126-964-11	ELECT	10uF	20%	50V
C3040	1-126-964-11	ELECT	10uF	20%	50V
C3041	1-126-923-11	ELECT	220uF	20%	10V
C3042	1-126-962-11	ELECT	3.3uF	20%	50V
C3043	1-126-962-11	ELECT	3.3uF	20%	50V
C3044	1-136-165-00	FILM	0.1uF	5%	50V
C3045	1-136-165-00	FILM	0.1uF	5%	50V
C3046	1-126-959-11	ELECT	0.47uF	20%	50V
C3047	1-126-963-11	ELECT	4.7uF	20%	50V
C3048	1-126-959-11	ELECT	0.47uF	20%	50V
C3049	1-126-963-11	ELECT	4.7uF	20%	50V
C3050	1-136-167-00	FILM	0.15uF	5%	50V
C3051	1-126-962-11	ELECT	3.3uF	20%	50V
C3052	1-136-167-00	FILM	0.15uF	5%	50V
C3058	1-164-159-11	CERAMIC	0.1uF		50V

< CONNECTOR >

CN102	1-564-506-11	PLUG, CONNECTOR 3P	
CN103	1-774-289-11	PIN, CONNECTOR (PC BOARD) 15P	
CN105	1-774-336-11	SOCKET, CONNECTOR(PC BOARD)14P	
CN106	1-774-336-11	SOCKET, CONNECTOR(PC BOARD)14P	
* CN811	1-569-498-11	SOCKET, CONNECTOR 12P	
CN2003	1-691-765-41	PLUG (MICRO CONNECTOR) 3P	
* CN6002	1-568-937-11	PIN, CONNECTOR 10P	
CN6003	1-770-722-11	CONNECTOR, BOARD TO BOARD 6P	

< CONNECTOR >

* CNP701	1-764-017-21	HOUSING,CONNECTOR(PC BOARD)17P	(SYSTEM CONTROL)

< DIODE >

D101	8-719-987-63	DIODE	1N4148M
D102	8-719-987-63	DIODE	1N4148M
D601	8-719-024-99	DIODE	11ES2-NTA2B
D610	8-719-987-63	DIODE	1N4148M
D670	8-719-987-63	DIODE	1N4148M
D690	8-719-987-63	DIODE	1N4148M
D691	8-719-987-63	DIODE	1N4148M
D701	8-719-024-99	DIODE	11ES2-NTA2B
D703	8-719-024-99	DIODE	11ES2-NTA2B
D704	8-719-024-99	DIODE	11ES2-NTA2B
D801	8-719-302-38	DIODE	RBV-602-01
D809	8-719-987-63	DIODE	1N4148M
D810	8-719-987-63	DIODE	1N4148M
D811	8-719-934-22	DIODE	HZS30-2L
D821	8-719-987-63	DIODE	1N4148M
D824	8-719-024-99	DIODE	11ES2-NTA2B
D830	8-719-024-99	DIODE	11ES2-NTA2B
D840	8-719-987-63	DIODE	1N4148M
D841	8-719-987-63	DIODE	1N4148M
D852	8-719-987-63	DIODE	1N4148M
D1021	8-719-987-63	DIODE	1N4148M
D2001	8-719-987-63	DIODE	1N4148M
D2002	8-719-024-99	DIODE	11ES2-NTA2B

< TERMINAL >

* E801	1-537-738-21	TERMINAL, EARTH	

MAIN

Ref. No.	Part No.	Description	Remarks
		< IC >	
IC101	8-759-634-51	IC M5218AP	
IC105	8-759-460-02	IC M62427FP-A	
IC701	8-759-000-47	IC MC14051BCP	
IC702	8-759-000-47	IC MC14051BCP	
IC850	8-759-111-68	IC uPC1237HA	
IC2001	8-759-634-50	IC M5218AL	
IC2002	8-759-281-42	IC TC9210P	
IC3000	8-759-442-97	IC LV1016	
IC3001	8-759-442-96	IC LA2786	
		< JACK >	
J701	1-770-614-11	JACK, PIN 4P (MD/VIDEO)	
J901	1-779-379-11	JACK, PIN 2P (SUPER WOOFER/MONITOR)	
		< COIL >	
L3001	1-410-509-11	INDUCTOR 10uH	
L3002	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q111	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q111	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q112	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q112	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q161	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q161	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q162	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q162	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q190	8-729-422-57	TRANSISTOR UN4111	
Q191	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q192	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q602	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q604	8-729-422-57	TRANSISTOR UN4111	
Q606	8-729-801-94	TRANSISTOR 2SD1387-4	
Q801	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q810	8-729-900-80	TRANSISTOR DTC114ES	
Q856	8-729-900-80	TRANSISTOR DTC114ES	
Q857	8-729-900-63	TRANSISTOR DTA124ES	
Q2001	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q2010	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q2051	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q2100	8-729-141-26	TRANSISTOR 2SC3622A-LK	
		< RESISTOR >	
R101	1-249-429-11	CARBON 10K 5% 1/4W	
R102	1-249-429-11	CARBON 10K 5% 1/4W	
R103	1-249-429-11	CARBON 10K 5% 1/4W	
R104	1-249-429-11	CARBON 10K 5% 1/4W	
R105	1-249-429-11	CARBON 10K 5% 1/4W	
R108	1-247-887-00	CARBON 220K 5% 1/4W	(TH)
R108	1-247-897-11	CARBON 560K 5% 1/4W	(EXCEPT TH)
R109	1-249-417-11	CARBON 1K 5% 1/4W F	(TH)
R109	1-249-419-11	CARBON 1.5K 5% 1/4W F	(EXCEPT TH)
R110	1-249-433-11	CARBON 22K 5% 1/4W	
R111	1-249-441-11	CARBON 100K 5% 1/4W	
R112	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R113	1-249-435-11	CARBON 33K 5% 1/4W	
R115	1-249-441-11	CARBON 100K 5% 1/4W	(TH)
R115	1-249-439-11	CARBON 68K 5% 1/4W	(EXCEPT TH)
R116	1-249-437-11	CARBON 47K 5% 1/4W	
R117	1-247-903-00	CARBON 1M 5% 1/4W	
R118	1-249-417-11	CARBON 1K 5% 1/4W F	
R119	1-249-437-11	CARBON 47K 5% 1/4W	(TH)
R119	1-249-433-11	CARBON 22K 5% 1/4W	(EXCEPT TH)
R120	1-249-437-11	CARBON 47K 5% 1/4W	
R122	1-247-903-00	CARBON 1M 5% 1/4W	
R123	1-249-433-11	CARBON 22K 5% 1/4W	
R124	1-249-437-11	CARBON 47K 5% 1/4W	
R125	1-247-807-31	CARBON 100 5% 1/4W	
R126	1-249-429-11	CARBON 10K 5% 1/4W	
R129	1-247-887-00	CARBON 220K 5% 1/4W	
R137	1-247-807-31	CARBON 100 5% 1/4W	
R138	1-247-807-31	CARBON 100 5% 1/4W	
R139	1-247-807-31	CARBON 100 5% 1/4W	
R140	1-247-807-31	CARBON 100 5% 1/4W	
R141	1-247-807-31	CARBON 100 5% 1/4W	
R142	1-247-807-31	CARBON 100 5% 1/4W	
R151	1-249-429-11	CARBON 10K 5% 1/4W	
R152	1-249-429-11	CARBON 10K 5% 1/4W	
R153	1-249-429-11	CARBON 10K 5% 1/4W	
R154	1-249-429-11	CARBON 10K 5% 1/4W	
R155	1-249-429-11	CARBON 10K 5% 1/4W	
R156	1-249-429-11	CARBON 10K 5% 1/4W	
R158	1-247-887-00	CARBON 220K 5% 1/4W	(TH)
R158	1-247-897-11	CARBON 560K 5% 1/4W	(EXCEPT TH)
R159	1-249-417-11	CARBON 1K 5% 1/4W F	(TH)
R159	1-249-419-11	CARBON 1.5K 5% 1/4W F	(EXCEPT TH)
R160	1-249-433-11	CARBON 22K 5% 1/4W	
R161	1-249-441-11	CARBON 100K 5% 1/4W	
R162	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R163	1-249-435-11	CARBON 33K 5% 1/4W	
R165	1-249-441-11	CARBON 100K 5% 1/4W	(TH)
R165	1-249-439-11	CARBON 68K 5% 1/4W	(EXCEPT TH)
R167	1-249-441-11	CARBON 100K 5% 1/4W	
R172	1-247-903-00	CARBON 1M 5% 1/4W	
R173	1-249-433-11	CARBON 22K 5% 1/4W	
R174	1-249-437-11	CARBON 47K 5% 1/4W	
R176	1-249-429-11	CARBON 10K 5% 1/4W	
R177	1-249-437-11	CARBON 47K 5% 1/4W	
R178	1-249-437-11	CARBON 47K 5% 1/4W	(TH)
R178	1-249-433-11	CARBON 22K 5% 1/4W	(EXCEPT TH)
R180	1-249-429-11	CARBON 10K 5% 1/4W	
R181	1-247-895-00	CARBON 470K 5% 1/4W	
R182	1-247-895-00	CARBON 470K 5% 1/4W	

Ref. No.	Part No.	Description			Remarks
R183	1-249-441-11	CARBON	100K	5%	1/4W
R184	1-249-425-11	CARBON	4.7K	5%	1/4W F (TH)
R184	1-249-429-11	CARBON	10K	5%	1/4W (EXCEPT TH)
R185	1-249-425-11	CARBON	4.7K	5%	1/4W F
R186	1-249-441-11	CARBON	100K	5%	1/4W
R190	1-249-441-11	CARBON	100K	5%	1/4W
R191	1-249-417-11	CARBON	1K	5%	1/4W F
R192	1-249-425-11	CARBON	4.7K	5%	1/4W F
R195	1-249-425-11	CARBON	4.7K	5%	1/4W F
R196	1-247-807-31	CARBON	100	5%	1/4W
R601	1-249-425-11	CARBON	4.7K	5%	1/4W F
R602	1-249-429-11	CARBON	10K	5%	1/4W
R603	1-249-421-11	CARBON	2.2K	5%	1/4W F
R604	1-249-435-11	CARBON	33K	5%	1/4W
R620	1-249-431-11	CARBON	15K	5%	1/4W
R670	1-249-431-11	CARBON	15K	5%	1/4W
R690	1-249-432-11	CARBON	18K	5%	1/4W
R691	1-249-432-11	CARBON	18K	5%	1/4W
R702	1-249-417-11	CARBON	1K	5%	1/4W F
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-249-425-11	CARBON	4.7K	5%	1/4W F
R705	1-249-425-11	CARBON	4.7K	5%	1/4W F
R707	1-249-441-11	CARBON	100K	5%	1/4W
R710	1-249-417-11	CARBON	1K	5%	1/4W F
R711	1-249-417-11	CARBON	1K	5%	1/4W F (EXCEPT TH)
R752	1-249-417-11	CARBON	1K	5%	1/4W F
R753	1-249-441-11	CARBON	100K	5%	1/4W
R754	1-249-425-11	CARBON	4.7K	5%	1/4W F
R755	1-249-425-11	CARBON	4.7K	5%	1/4W F
R757	1-249-441-11	CARBON	100K	5%	1/4W
R760	1-249-417-11	CARBON	1K	5%	1/4W F
R761	1-249-417-11	CARBON	1K	5%	1/4W F (EXCEPT TH)
⚠R801	1-212-982-00	FUSIBLE	100	5%	1/2W F
R804	1-249-417-11	CARBON	1K	5%	1/4W F
R818	1-249-431-11	CARBON	15K	5%	1/4W
R819	1-249-431-11	CARBON	15K	5%	1/4W
R840	1-249-429-11	CARBON	10K	5%	1/4W
R851	1-249-430-11	CARBON	12K	5%	1/4W
R853	1-249-397-11	CARBON	22	5%	1/4W F
R854	1-249-441-11	CARBON	100K	5%	1/4W
R856	1-249-429-11	CARBON	10K	5%	1/4W
R857	1-249-435-11	CARBON	33K	5%	1/4W
R858	1-249-437-11	CARBON	47K	5%	1/4W
R859	1-249-439-11	CARBON	68K	5%	1/4W
R860	1-249-425-11	CARBON	4.7K	5%	1/4W F (TH)
R860	1-249-431-11	CARBON	15K	5%	1/4W (EXCEPT TH)
R861	1-249-439-11	CARBON	68K	5%	1/4W
R862	1-249-437-11	CARBON	47K	5%	1/4W
⚠R865	1-249-389-11	CARBON	4.7	5%	1/4W F
⚠R870	1-215-887-00	METAL OXIDE	150	5%	2W F
R1001	1-249-429-11	CARBON	10K	5%	1/4W
R1002	1-249-429-11	CARBON	10K	5%	1/4W
R1020	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1021	1-249-417-11	CARBON	1K	5%	1/4W F
R2001	1-249-417-11	CARBON	1K	5%	1/4W F
R2002	1-249-441-11	CARBON	100K	5%	1/4W
R2003	1-249-429-11	CARBON	10K	5%	1/4W
R2004	1-249-429-11	CARBON	10K	5%	1/4W
R2005	1-249-441-11	CARBON	100K	5%	1/4W
R2006	1-249-421-11	CARBON	2.2K	5%	1/4W F
R2007	1-249-425-11	CARBON	4.7K	5%	1/4W F
R2010	1-249-441-11	CARBON	100K	5%	1/4W
⚠R2030	1-215-863-11	METAL OXIDE	100	5%	1W F
R2051	1-249-417-11	CARBON	1K	5%	1/4W F
R2052	1-249-441-11	CARBON	100K	5%	1/4W
R2053	1-249-431-11	CARBON	15K	5%	1/4W
R2054	1-249-429-11	CARBON	10K	5%	1/4W
R2055	1-249-441-11	CARBON	100K	5%	1/4W
R2056	1-249-421-11	CARBON	2.2K	5%	1/4W F
R2057	1-249-425-11	CARBON	4.7K	5%	1/4W F
R2060	1-249-441-11	CARBON	100K	5%	1/4W
R2101	1-249-425-11	CARBON	4.7K	5%	1/4W F
R2102	1-249-437-11	CARBON	47K	5%	1/4W
R3000	1-247-903-00	CARBON	1M	5%	1/4W
R3001	1-249-411-11	CARBON	330	5%	1/4W
R3002	1-249-432-11	CARBON	18K	5%	1/4W
R3006	1-249-436-11	CARBON	39K	5%	1/4W
R3007	1-249-436-11	CARBON	39K	5%	1/4W
R3008	1-249-417-11	CARBON	1K	5%	1/4W F
R3009	1-249-417-11	CARBON	1K	5%	1/4W F
R3010	1-249-417-11	CARBON	1K	5%	1/4W F
R3030	1-249-417-11	CARBON	1K	5%	1/4W F
R3031	1-249-441-11	CARBON	100K	5%	1/4W
R3040	1-249-417-11	CARBON	1K	5%	1/4W F
R3041	1-249-441-11	CARBON	100K	5%	1/4W
R3100	1-247-807-31	CARBON	100	5%	1/4W
R3107	1-249-441-11	CARBON	100K	5%	1/4W
R3207	1-249-441-11	CARBON	100K	5%	1/4W

< RELAY >

RY801	1-515-920-11	RELAY (24V)			
RY2001	1-515-920-11	RELAY (24V)			

< TERMINAL >

TB901	1-537-240-31	TERMINAL BOARD (CHECKER PIN) (FRONT SPEAKER)			

< VIBRATOR >

X3001	1-579-952-21	VIBRATOR, CERAMIC 8MHz			

****

*	1-666-057-11	MIC ECHO BOARD			

****

< CAPACITOR >

C6001	1-162-306-11	CERAMIC	0.01uF	20%	16V
C6003	1-124-257-00	ELECT	2.2uF	20%	50V
C6005	1-162-215-31	CERAMIC	47PF	5%	50V
C6006	1-162-290-31	CERAMIC	470PF	10%	50V
C6023	1-162-215-31	CERAMIC	47PF	5%	50V
C6024	1-162-282-31	CERAMIC	100PF	10%	50V
C6025	1-124-257-00	ELECT	2.2uF	20%	50V
C6026	1-124-261-00	ELECT	10uF	20%	50V
C6027	1-124-261-00	ELECT	10uF	20%	50V
C6030	1-124-465-00	ELECT	0.47uF	20%	50V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MIC ECHO PANEL VOLUME

Ref. No.	Part No.	Description			Remarks
C6032	1-162-306-11	CERAMIC	0.01uF	20%	16V
C6033	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< TERMINAL >			
* G6001	1-537-738-21	TERMINAL, EARTH			
		< IC >			
IC6001	8-759-634-51	IC M5218AP			
		< JACK >			
J6001	1-770-226-11	JACK (LARGE TYPE)(MIX MIC)			
J6003	1-770-226-11	JACK (LARGE TYPE)(PHONES)			
		< RESISTOR >			
R6001	1-249-429-11	CARBON	10K	5%	1/4W (TH)
R6003	1-249-417-11	CARBON	1K	5%	1/4W F
R6005	1-249-417-11	CARBON	1K	5%	1/4W F
R6006	1-249-425-11	CARBON	4.7K	5%	1/4W F
R6017	1-249-417-11	CARBON	1K	5%	1/4W F
R6018	1-247-881-00	CARBON	120K	5%	1/4W
R6019	1-247-807-31	CARBON	100	5%	1/4W
R6030	1-247-895-00	CARBON	470K	5%	1/4W
R6201	1-249-419-11	CARBON	1.5K	5%	1/4W F
R6202	1-249-418-11	CARBON	1.2K	5%	1/4W F
R6251	1-249-419-11	CARBON	1.5K	5%	1/4W F
R6252	1-249-418-11	CARBON	1.2K	5%	1/4W F
		< VARIABLE RESISTOR >			
RV6001	1-225-410-11	RES, VAR, CARBON 50K (MIC LEVEL)			

****

*	A-4398-467-A	PANEL BOARD, COMPLETE (EXCEPT AUS,TH)			
		**********			
*	A-4398-468-A	PANEL BOARD, COMPLETE (AUS)			
		**********			
*	A-4403-218-A	PANEL BOARD, COMPLETE (TH)			
		**********			
		VOLUME BOARD			
		**********			
*	4-932-810-11	CUSHION (FL)			
*	4-986-870-01	HOLDER, FL TUBE			
		< CAPACITOR >			
C501	1-164-159-11	CERAMIC	0.1uF		50V
C502	1-164-159-11	CERAMIC	0.1uF		50V
C503	1-162-203-31	CERAMIC	15PF	5%	50V
C504	1-162-205-31	CERAMIC	18PF	5%	50V
C505	1-124-261-00	ELECT	10uF	20%	50V
C506	1-137-399-11	FILM	0.1uF	5%	50V
C507	1-124-248-00	ELECT	22uF	20%	35V
C508	1-162-306-11	CERAMIC	0.01uF	20%	16V
C509	1-124-261-00	ELECT	10uF	20%	50V
C510	1-162-306-11	CERAMIC	0.01uF	20%	16V
C511	1-124-584-00	ELECT	100uF	20%	10V
C512	1-124-261-00	ELECT	10uF	20%	50V
C514	1-124-261-00	ELECT	10uF	20%	50V
C515	1-162-306-11	CERAMIC	0.01uF	20%	16V
C516	1-124-261-00	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remarks
C517	1-137-374-11	FILM	0.047uF	5%	50V
C518	1-162-306-11	CERAMIC	0.01uF	20%	16V
C519	1-124-464-11	ELECT	0.22uF	20%	50V
C520	1-137-371-11	FILM	0.015uF	5%	50V
C521	1-124-463-00	ELECT	0.1uF	20%	50V
C522	1-164-159-11	CERAMIC	0.1uF		50V
C523	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C524	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C525	1-162-288-31	CERAMIC	330PF	10%	50V
C526	1-164-159-11	CERAMIC	0.1uF		50V
C527	1-164-159-11	CERAMIC	0.1uF		50V
C528	1-104-905-11	CAPACITOR	0.22F		5.5V
C544	1-162-306-11	CERAMIC	0.01uF	20%	16V
C545	1-162-306-11	CERAMIC	0.01uF	20%	16V
C546	1-162-306-11	CERAMIC	0.01uF	20%	16V
C549	1-162-284-31	CERAMIC	150PF	10%	50V
C550	1-162-286-31	CERAMIC	220PF	10%	50V
		< CONNECTOR >			
CN501	1-774-342-11	PLUG, CONNECTOR (PC BOARD) 14P			
CN502	1-774-342-11	PLUG, CONNECTOR (PC BOARD) 14P			
* CN810	1-569-507-11	PIN, CONNECTOR 12P			
		< DIODE >			
D508	8-719-046-36	DIODE SEL5921A-TH15			
D509	8-719-046-36	DIODE SEL5921A-TH15			
D510	8-719-046-36	DIODE SEL5921A-TH15			
D511	8-719-987-63	DIODE 1N4148M			
D521	8-719-046-80	DIODE SML19416W-TP4			
D523	8-719-046-80	DIODE SML19416W-TP4			
D524	8-719-046-80	DIODE SML19416W-TP4			
D525	8-719-046-80	DIODE SML19416W-TP4			
D526	8-719-046-80	DIODE SML19416W-TP4			
D527	8-719-046-80	DIODE SML19416W-TP4			
D528	8-719-046-80	DIODE SML19416W-TP4			
D529	8-719-046-39	DIODE SEL5821A-TH15			
D530	8-719-046-39	DIODE SEL5821A-TH15			
D531	8-719-046-39	DIODE SEL5821A-TH15			
D532	8-719-046-80	DIODE SML19416W-TP4			
D533	8-719-046-39	DIODE SEL5821A-TH15			
D534	8-719-046-44	DIODE SEL5221S			
D535	8-719-046-36	DIODE SEL5921A-TH15			
D536	8-719-032-86	DIODE SEL5420E			
D537	8-719-032-86	DIODE SEL5420E			
D538	8-719-046-44	DIODE SEL5221S			
D539	8-719-046-44	DIODE SEL5221S			
D540	8-719-046-36	DIODE SEL5921A-TH15			
D541	8-719-046-36	DIODE SEL5921A-TH15			
D542	8-719-064-63	DIODE SELU5823A-TP15			
D543	8-719-064-63	DIODE SELU5823A-TP15			
D575	8-719-987-63	DIODE 1N4148M			
D576	8-719-987-63	DIODE 1N4148M			
D579	8-719-024-99	DIODE 11ES2-NTA2B			
D580	8-719-987-63	DIODE 1N4148M			
D581	8-719-987-63	DIODE 1N4148M			
D582	8-719-014-73	DIODE UZP-5.6BC-TP			
D583	8-719-024-99	DIODE 11ES2-NTA2B			
D585	8-719-987-63	DIODE 1N4148M			
D586	8-719-987-63	DIODE 1N4148M			

Ref. No.	Part No.	Description	Remarks
D587	8-719-987-63	DIODE 1N4148M	
D588	8-719-987-63	DIODE 1N4148M	
D589	8-719-987-63	DIODE 1N4148M	
		< FILTER >	
FL501	1-517-618-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC501	8-759-483-31	IC TMP87CM75F-6623	
IC502	8-759-332-18	IC GP1U27XB	
IC503	8-759-165-82	IC PST600E-T	
IC504	8-759-372-64	IC M66313FP-200C	
		< COIL >	
L502	1-408-074-00	INDUCTOR 56uH	
		< TRANSISTOR >	
Q501	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q501	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q502	8-729-422-57	TRANSISTOR UN4111	
Q503	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q503	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q504	8-729-422-57	TRANSISTOR UN4111	
Q505	8-729-422-57	TRANSISTOR UN4111	
Q506	8-729-422-57	TRANSISTOR UN4111	
Q507	8-729-422-57	TRANSISTOR UN4111	
Q508	8-729-422-57	TRANSISTOR UN4111	
Q509	8-729-422-57	TRANSISTOR UN4111	
Q510	8-729-422-57	TRANSISTOR UN4111	
		< RESISTOR >	
R501	1-249-407-11	CARBON 150 5% 1/4W F	
R502	1-249-409-11	CARBON 220 5% 1/4W F	
R503	1-249-411-11	CARBON 330 5% 1/4W	
R504	1-249-413-11	CARBON 470 5% 1/4W F	
R505	1-249-415-11	CARBON 680 5% 1/4W F	
R506	1-249-417-11	CARBON 1K 5% 1/4W F	
R507	1-249-407-11	CARBON 150 5% 1/4W F	
R508	1-249-411-11	CARBON 330 5% 1/4W	
R511	1-249-407-11	CARBON 150 5% 1/4W F	
R512	1-249-409-11	CARBON 220 5% 1/4W F	
R513	1-249-411-11	CARBON 330 5% 1/4W	
R514	1-249-413-11	CARBON 470 5% 1/4W F	
R515	1-249-415-11	CARBON 680 5% 1/4W F	
R516	1-249-417-11	CARBON 1K 5% 1/4W F	
R517	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R518	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R519	1-247-843-11	CARBON 3.3K 5% 1/4W	
R520	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R521	1-249-431-11	CARBON 15K 5% 1/4W	
R522	1-249-437-11	CARBON 47K 5% 1/4W	
R523	1-249-413-11	CARBON 470 5% 1/4W F	
R524	1-249-415-11	CARBON 680 5% 1/4W F	
R525	1-249-417-11	CARBON 1K 5% 1/4W F	
R526	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R527	1-249-421-11	CARBON 2.2K 5% 1/4W F	

Ref. No.	Part No.	Description	Remarks
R528	1-247-843-11	CARBON 3.3K 5% 1/4W	
R529	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R530	1-249-431-11	CARBON 15K 5% 1/4W	
R531	1-249-437-11	CARBON 47K 5% 1/4W	
R532	1-249-409-11	CARBON 220 5% 1/4W F	
R550	1-249-407-11	CARBON 150 5% 1/4W F	
R551	1-249-407-11	CARBON 150 5% 1/4W F	
R552	1-249-407-11	CARBON 150 5% 1/4W F	
R553	1-249-407-11	CARBON 150 5% 1/4W F	
R554	1-249-407-11	CARBON 150 5% 1/4W F	
R555	1-249-401-11	CARBON 47 5% 1/4W F	
R556	1-249-403-11	CARBON 68 5% 1/4W F	
R557	1-249-399-11	CARBON 33 5% 1/4W	
R557	1-249-401-11	CARBON 47 5% 1/4W F	
R558	1-249-399-11	CARBON 33 5% 1/4W F	
R559	1-247-807-31	CARBON 100 5% 1/4W	
R560	1-247-807-31	CARBON 100 5% 1/4W	
R561	1-247-807-31	CARBON 100 5% 1/4W	
R563	1-247-807-31	CARBON 100 5% 1/4W	
R564	1-247-807-31	CARBON 100 5% 1/4W	
R565	1-247-807-31	CARBON 100 5% 1/4W	
R566	1-247-807-31	CARBON 100 5% 1/4W	
R567	1-247-807-31	CARBON 100 5% 1/4W	
R568	1-247-807-31	CARBON 100 5% 1/4W	
R569	1-247-807-31	CARBON 100 5% 1/4W	
R570	1-247-807-31	CARBON 100 5% 1/4W	
R571	1-247-807-31	CARBON 100 5% 1/4W	
R572	1-247-807-31	CARBON 100 5% 1/4W	
R573	1-247-807-31	CARBON 100 5% 1/4W	
R574	1-247-807-31	CARBON 100 5% 1/4W	
R575	1-247-807-31	CARBON 100 5% 1/4W	
R576	1-247-807-31	CARBON 100 5% 1/4W	
R577	1-247-807-31	CARBON 100 5% 1/4W	
R578	1-247-807-31	CARBON 100 5% 1/4W	
R579	1-249-399-11	CARBON 33 5% 1/4W F	
R580	1-249-426-11	CARBON 5.6K 5% 1/4W	
R581	1-249-426-11	CARBON 5.6K 5% 1/4W	
R582	1-249-429-11	CARBON 10K 5% 1/4W	
R583	1-249-403-11	CARBON 68 5% 1/4W F	
R584	1-249-403-11	CARBON 68 5% 1/4W F	
R585	1-249-403-11	CARBON 68 5% 1/4W F	
R586	1-249-403-11	CARBON 68 5% 1/4W F	
R587	1-249-403-11	CARBON 68 5% 1/4W F	
R588	1-249-403-11	CARBON 68 5% 1/4W F	
R589	1-249-403-11	CARBON 68 5% 1/4W F	
R590	1-249-403-11	CARBON 68 5% 1/4W F	
R601	1-249-433-11	CARBON 22K 5% 1/4W	
R602	1-249-437-11	CARBON 47K 5% 1/4W	
R603	1-249-437-11	CARBON 47K 5% 1/4W	
R604	1-249-429-11	CARBON 10K 5% 1/4W	
R605	1-249-441-11	CARBON 100K 5% 1/4W	
R606	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R610	1-249-429-11	CARBON 10K 5% 1/4W	
R611	1-249-429-11	CARBON 10K 5% 1/4W	
R613	1-249-429-11	CARBON 10K 5% 1/4W	
R614	1-249-409-11	CARBON 220 5% 1/4W F	
R615	1-249-409-11	CARBON 220 5% 1/4W F	
R616	1-247-843-11	CARBON 3.3K 5% 1/4W	
R617	1-247-843-11	CARBON 3.3K 5% 1/4W	
R618	1-247-843-11	CARBON 3.3K 5% 1/4W	

PANEL | VOLUME | PRI | SEC | SURROUND AMP

Ref. No.	Part No.	Description			Remarks
R619	1-249-429-11	CARBON	10K	5%	1/4W
R620	1-249-429-11	CARBON	10K	5%	1/4W
R621	1-249-429-11	CARBON	10K	5%	1/4W
R622	1-249-429-11	CARBON	10K	5%	1/4W
R623	1-249-429-11	CARBON	10K	5%	1/4W
R624	1-249-429-11	CARBON	10K	5%	1/4W
R630	1-249-435-11	CARBON	33K	5%	1/4W
R631	1-249-435-11	CARBON	33K	5%	1/4W
R632	1-249-437-11	CARBON	47K	5%	1/4W
R633	1-247-903-00	CARBON	1M	5%	1/4W
R634	1-249-437-11	CARBON	47K	5%	1/4W
R635	1-247-903-00	CARBON	1M	5%	1/4W
R636	1-249-435-11	CARBON	33K	5%	1/4W
R637	1-249-429-11	CARBON	10K	5%	1/4W
R638	1-249-437-11	CARBON	47K	5%	1/4W
R639	1-249-437-11	CARBON	47K	5%	1/4W
R640	1-247-903-00	CARBON	1M	5%	1/4W
R641	1-247-903-00	CARBON	1M	5%	1/4W
R642	1-249-410-11	CARBON	270	5%	1/4W F (EXCEPT AUS,TH)
R643	1-249-427-11	CARBON	6.8K	5%	1/4W F
R662	1-247-903-00	CARBON	1M	5%	1/4W
R663	1-247-903-00	CARBON	1M	5%	1/4W
R664	1-247-903-00	CARBON	1M	5%	1/4W
R665	1-247-903-00	CARBON	1M	5%	1/4W
R666	1-249-403-11	CARBON	68	5%	1/4W F (EXCEPT TH)
R666	1-249-417-11	CARBON	1K	5%	1/4W F
R667	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S159	1-762-751-11	SWITCH, TACTILE			
S501	1-762-751-11	SWITCH, TACTILE (MOVIE)			
S502	1-762-751-11	SWITCH, TACTILE			
S503	1-762-751-11	SWITCH, TACTILE (EFFECT ON/OFF)			
S504	1-762-751-11	SWITCH, TACTILE (LOW FREQ)			
S505	1-762-751-11	SWITCH, TACTILE (MEMORY)			
S506	1-762-751-11	SWITCH, TACTILE (TUNING MODE)			
S507	1-762-751-11	SWITCH, TACTILE (FLASH)			
S508	1-762-751-11	SWITCH, TACTILE (POWER)			
S512	1-762-751-11	SWITCH, TACTILE (GAME)			
S513	1-762-751-11	SWITCH, TACTILE (P FILE)			
S514	1-762-751-11	SWITCH, TACTILE (MEMO)			
S515	1-762-751-11	SWITCH, TACTILE (HIGH FREQ)			
S516	1-762-751-11	SWITCH, TACTILE (REPEAT)			
S517	1-762-751-11	SWITCH, TACTILE (1/ALL DISCS)			
S518	1-762-751-11	SWITCH, TACTILE (PLAY MODE)			
S520	1-762-751-11	SWITCH, TACTILE (DBFB)			
S521	1-762-751-11	SWITCH, TACTILE (GROOVE)			
S522	1-762-751-11	SWITCH, TACTILE (FUNCTION)			
S523	1-762-751-11	SWITCH, TACTILE (MONO/ST)			
S524	1-762-751-11	SWITCH, TACTILE (TUNER BAND)			
S525	1-762-751-11	SWITCH, TACTILE (TIMER SELECT)			
S526	1-762-751-11	SWITCH, TACTILE (CLOCK TIMER SET)			
S527	1-762-751-11	SWITCH, TACTILE (DOLBY PRO LOGIC)			
S528	1-762-751-11	SWITCH, TACTILE (MODE)			
S531	1-762-751-11	SWITCH, TACTILE (KARAOKE PON)			
S532	1-762-751-11	SWITCH, TACTILE (SURROUND)			
S533	1-762-751-11	SWITCH, TACTILE (LOOP)			
S535	1-467-869-11	ENCODER, ROTARY (VOLUME)			
S537	1-762-751-11	SWITCH, TACTILE (WAVE)			
S538	1-762-751-11	SWITCH, TACTILE (DISPLAY)			
		< VIBRATOR >			
X501	1-579-125-11	VIBRATOR, CERAMIC 5MHz			
X502	1-567-098-41	VIBRATOR, CRYSTAL 32KHz			

****

*	1-666-069-11	PRI BOARD			
		*********			
	1-533-293-11	FUSE HOLDER			
		< CONNECTOR >			
CN851	1-564-321-00	PIN, CONNECTOR 2P			
		< FUSE >			
⚠F851	1-532-465-51	FUSE, TIME LAG 3.15A 250V			
⚠F852	1-532-506-51	FUSE TIME LAG 6.3A 250V (EXCEPT AUS,TH)			
		< SWITCH >			
⚠VS851	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)(EXCEPT AUS,TH)			

****

*	1-666-059-11	SEC BOARD			
		*********			
	1-533-293-11	FUSE HOLDER			
		< CONNECTOR >			
* CN852	1-564-527-11	PLUG, CONNECTOR 12P			
		< FUSE >			
⚠F853	1-532-350-00	FUSE TIME LAG 4A 250V			
⚠F854	1-532-350-00	FUSE TIME LAG 4A 250V			
⚠F857	1-532-506-51	FUSE TIME LAG 6.3A 250V			
⚠F858	1-532-506-51	FUSE TIME LAG 6.3A 250V			
		< RESISTOR >			
⚠R855	1-219-121-11	FUSIBLE	0.22	5%	1/4W F
⚠R856	1-219-121-11	FUSIBLE	0.22	5%	1/4W F

****

*	A-4398-466-A	SURROUND AMP BOARD, COMPLETE (EXCEPT TH)			
		**********			
*	A-4403-217-A	SURROUND AMP BOARD, COMPLETE (TH)			
		**********			
		< CAPACITOR >			
C4000	1-162-306-11	CERAMIC	0.01uF	20%	16V
C4001	1-126-961-11	ELECT	2.2uF	20%	50V
C4002	1-162-294-31	CERAMIC	0.001uF	10%	50V
C4003	1-162-282-31	CERAMIC	100PF	10%	50V
C4004	1-126-964-11	ELECT	10uF	20%	50V
C4005	1-126-964-11	ELECT	10uF	20%	50V
C4006	1-136-165-00	FILM	0.1uF	5%	50V
C4007	1-136-165-00	FILM	0.1uF	5%	50V
C4010	1-126-967-11	ELECT	47uF	20%	50V
C4011	1-126-963-11	ELECT	4.7uF	20%	50V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remarks
C4012	1-126-965-11	ELECT	22uF	20%	50V	
C4013	1-126-967-11	ELECT	47uF	20%	50V	
C4040	1-126-963-11	ELECT	4.7uF	20%	50V	
C4051	1-126-961-11	ELECT	2.2uF	20%	50V	
C4052	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C4053	1-162-282-31	CERAMIC	100PF	10%	50V	
C4054	1-126-964-11	ELECT	10uF	20%	50V	
C4055	1-126-964-11	ELECT	10uF	20%	50V	
C4056	1-136-165-00	FILM	0.1uF	5%	50V	
C4057	1-136-165-00	FILM	0.1uF	5%	50V	
		< CONNECTOR >				
* CN4001	1-564-522-11	PLUG, CONNECTOR 7P				
		< DIODE >				
D4003	8-719-987-63	DIODE 1N4148M				
D4053	8-719-987-63	DIODE 1N4148M				
		< IC >				
IC4001	8-749-900-96	IC STK-4142MK2				
		< TRANSISTOR >				
Q4002	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
Q4052	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
		< RESISTOR >				
R4001	1-249-417-11	CARBON	1K	5%	1/4W	F
R4002	1-249-437-11	CARBON	47K	5%	1/4W	
R4003	1-249-413-11	CARBON	470	5%	1/4W	F
R4004	1-249-437-11	CARBON	47K	5%	1/4W	
R4006	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R4007	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R4008	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R4009	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R4010	1-249-397-11	CARBON	22	5%	1/4W	F
R4011	1-249-397-11	CARBON	22	5%	1/4W	F
R4013	1-249-417-11	CARBON	1K	5%	1/4W	F
R4014	1-249-431-11	CARBON	15K	5%	1/4W	
R4015	1-249-441-11	CARBON	100K	5%	1/4W	
⚠ R4020	1-208-602-11	WIREWOUND	0.22	10%	2W	F
⚠ R4032	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R4033	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R4034	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R4035	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R4036	1-249-421-11	CARBON	2.2K	5%	1/4W	F
⚠ R4043	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R4051	1-249-417-11	CARBON	1K	5%	1/4W	F
R4052	1-249-437-11	CARBON	47K	5%	1/4W	
R4053	1-249-413-11	CARBON	470	5%	1/4W	F
R4054	1-249-437-11	CARBON	47K	5%	1/4W	
R4056	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R4057	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R4058	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R4059	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R4060	1-249-397-11	CARBON	22	5%	1/4W	F
R4061	1-249-397-11	CARBON	22	5%	1/4W	F
R4063	1-249-417-11	CARBON	1K	5%	1/4W	F
R4064	1-249-431-11	CARBON	15K	5%	1/4W	
R4065	1-249-441-11	CARBON	100K	5%	1/4W	
⚠ R4070	1-208-602-11	WIREWOUND	0.22	10%	2W	F
*	1-666-071-11	SUR BOARD				
		< CAPACITOR >				
C601	1-162-306-11	CERAMIC	0.01uF	20%	16V	
		< CONNECTOR >				
CN601	1-564-506-11	PLUG, CONNECTOR 3P				
CN6004	1-770-726-11	CONNECTOR, BOARD TO BOARD 6P				
*	A-4398-997-A	SUPPLY POWER BOARD, COMPLETE				
		< CAPACITOR >				
C809	1-104-664-11	ELECT	47uF	20%	25V	
C811	1-126-933-11	ELECT	100uF	20%	16V	
C812	1-104-664-11	ELECT	47uF	20%	25V	
C813	1-126-967-11	ELECT	47uF	20%	10V	
C816	1-104-664-11	ELECT	47uF	20%	25V	
C817	1-126-933-11	ELECT	100uF	20%	10V	
C818	1-104-664-11	ELECT	47uF	20%	25V	
C819	1-126-967-11	ELECT	47uF	20%	10V	
C820	1-126-967-11	ELECT	47uF	20%	50V	
C831	1-126-974-11	ELECT	3300uF	20%	50V	
C832	1-126-974-11	ELECT	3300uF	20%	50V	
C835	1-136-165-00	FILM	0.1uF	5%	50V	
C836	1-136-165-00	FILM	0.1uF	5%	50V	
		< DIODE >				
D802	8-719-028-23	DIODE D3SBA20-4101				
D807	8-719-000-81	DIODE UZL-7L3				
D808	8-719-933-50	DIODE HZS7C2L				
D812	8-719-933-50	DIODE HZS7C2L				
D813	8-719-001-57	DIODE UZL-11H3-TP				
		< TRANSISTOR >				
Q802	8-729-209-15	TRANSISTOR 2SD2012				
Q804	8-729-209-15	TRANSISTOR 2SD2012				
Q805	8-729-141-83	TRANSISTOR 2SB1094-LK				
Q806	8-729-209-15	TRANSISTOR 2SD2012				
Q8004	8-729-620-05	TRANSISTOR 2SC2603-EF				
		< RESISTOR >				
R805	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R807	1-249-417-11	CARBON	1K	5%	1/4W	F
⚠ R808	1-212-962-00	FUSIBLE	15	5%	1/2W	F
R809	1-249-421-11	CARBON	2.2K	5%	1/4W	F
⚠ R810	1-213-036-51	FUSIBLE	1	5%	1W	F
⚠ R811	1-212-962-00	FUSIBLE	15	5%	1/2W	F
⚠ R813	1-213-060-51	FUSIBLE	10	5%	1W	F
R820	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R821	1-249-419-11	CARBON	1.5K	5%	1/4W	F
⚠ R830	1-216-446-00	METAL OXIDE	18	5%	2W	F

(EXCEPT TH)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SUPPLY POWER

Ref. No.	Part No.	Description			Remarks
⚠R830	1-215-881-11	METAL OXIDE	15	5% 2W F (TH)	
⚠R831	1-216-446-00	METAL OXIDE	18	5% 2W F (EXCEPT TH)	
⚠R831	1-215-881-11	METAL OXIDE	15	5% 2W F (TH)	
⚠R832	1-216-446-00	METAL OXIDE	18	5% 2W F (EXCEPT TH)	
⚠R832	1-215-881-11	METAL OXIDE	15	5% 2W F (TH)	
⚠R833	1-216-446-00	METAL OXIDE	18	5% 2W F (EXCEPT TH)	
⚠R833	1-215-881-11	METAL OXIDE	15	5% 2W F (TH)	
⚠R834	1-216-446-00	METAL OXIDE	18	5% 2W F (EXCEPT TH)	
⚠R834	1-215-881-11	METAL OXIDE	15	5% 2W F (TH)	
⚠R835	1-216-446-00	METAL OXIDE	18	5% 2W F (EXCEPT TH)	
⚠R835	1-215-881-11	METAL OXIDE	15	5% 2W F (TH)	
⚠R836	1-215-884-11	METAL OXIDE	47	5% 2W F (EXCEPT TH)	
⚠R836	1-215-885-00	METAL OXIDE	68	5% 2W F (TH)	

****

Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS	
		**********	
6	1-233-545-21	ENCAPSULATED COMPONENT (AUS,TH)	
6	1-233-546-21	ENCAPSULATED COMPONENT	(EXCEPT AUS,TH)
⚠12	1-690-608-11	CORD, POWER (AUS)	
⚠12	1-751-326-31	CORD, POWER (TH)	
⚠12	1-777-071-21	CORD, POWER (EA,HK,MY,SP)	
⚠12	1-782-315-11	CORD, POWER (E)	
⚠13	1-569-007-11	ADAPTOR, CONVERSION 2P (E)	
⚠13	1-569-008-21	ADAPTOR, CONVERSION 2P (EA,MY,SP)	
⚠13	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
M601	1-698-792-11	FAN, DC	
⚠T901	1-431-363-11	TRANSFORMER, POWER	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-872-09	SCREW +BVTT 3X8 (S)	
#2	7-685-881-09	SCREW +BVTT 4X8 (S)	
#3	7-685-646-79	SCREW +BVTT 3X8 TYPE2 N-S	
#4	7-685-647-79	SCREW +BVTT 3X10 TYPE2 N-S	
#5	7-685-650-79	SCREW +BVTT 3X16 TYPE2 IT-3	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-920-937-11

Sony Corporation
Home A&V Products Company

97G1626-1
Printed in Japan © 1997.7
Published by General Engineering Dept.
(Shibaura)